

Figure 1A

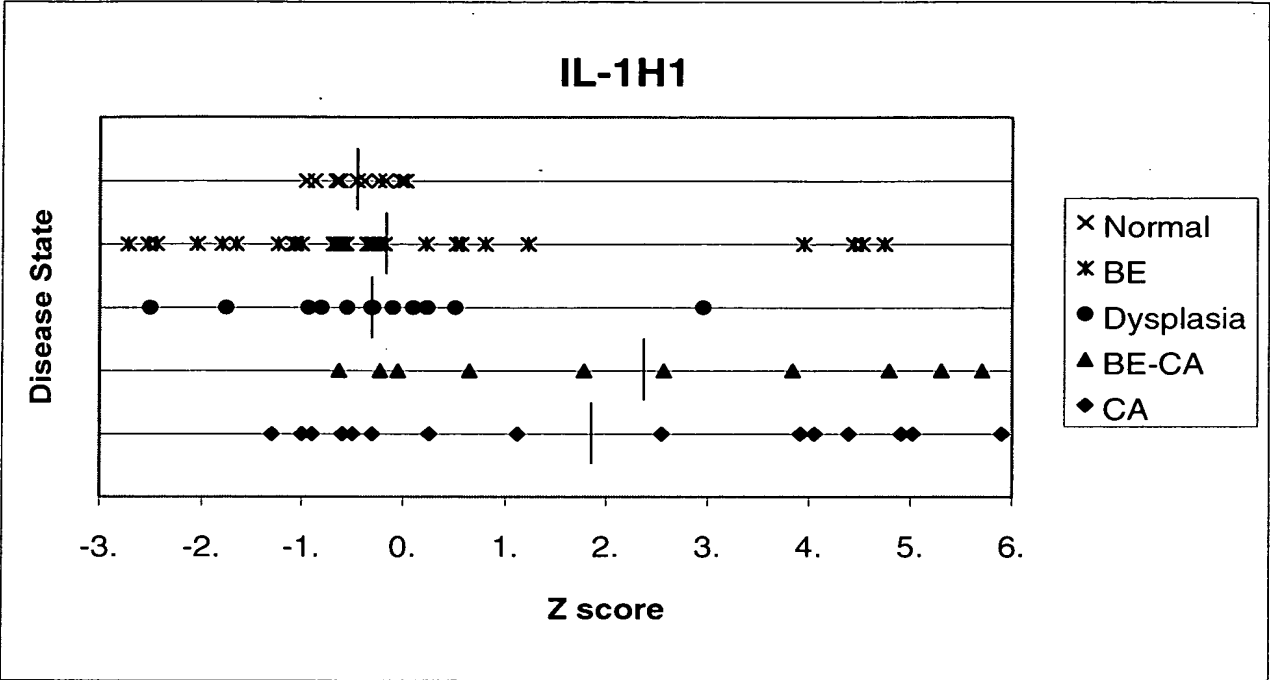


Figure 1B

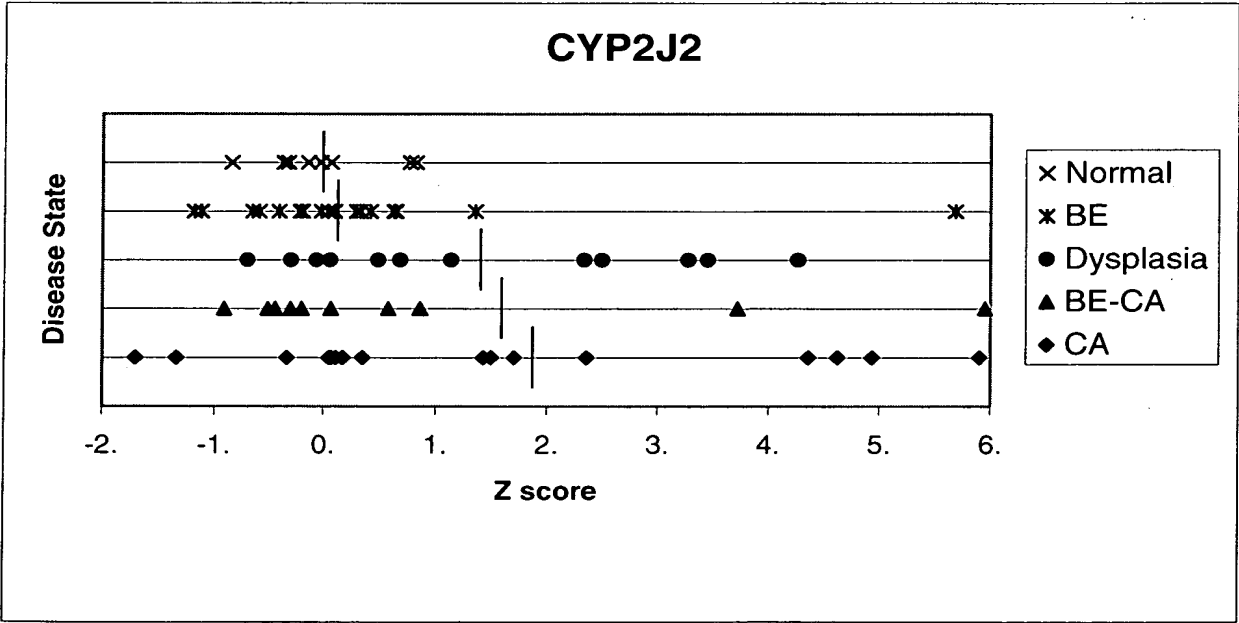


Figure 2A

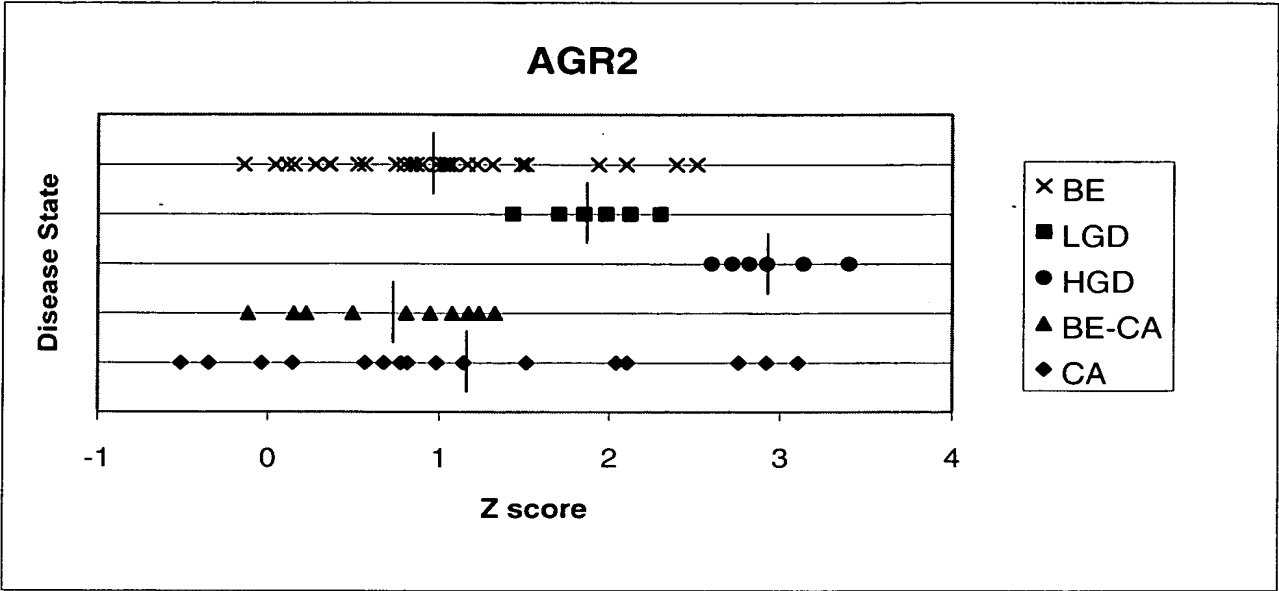


Figure 2B

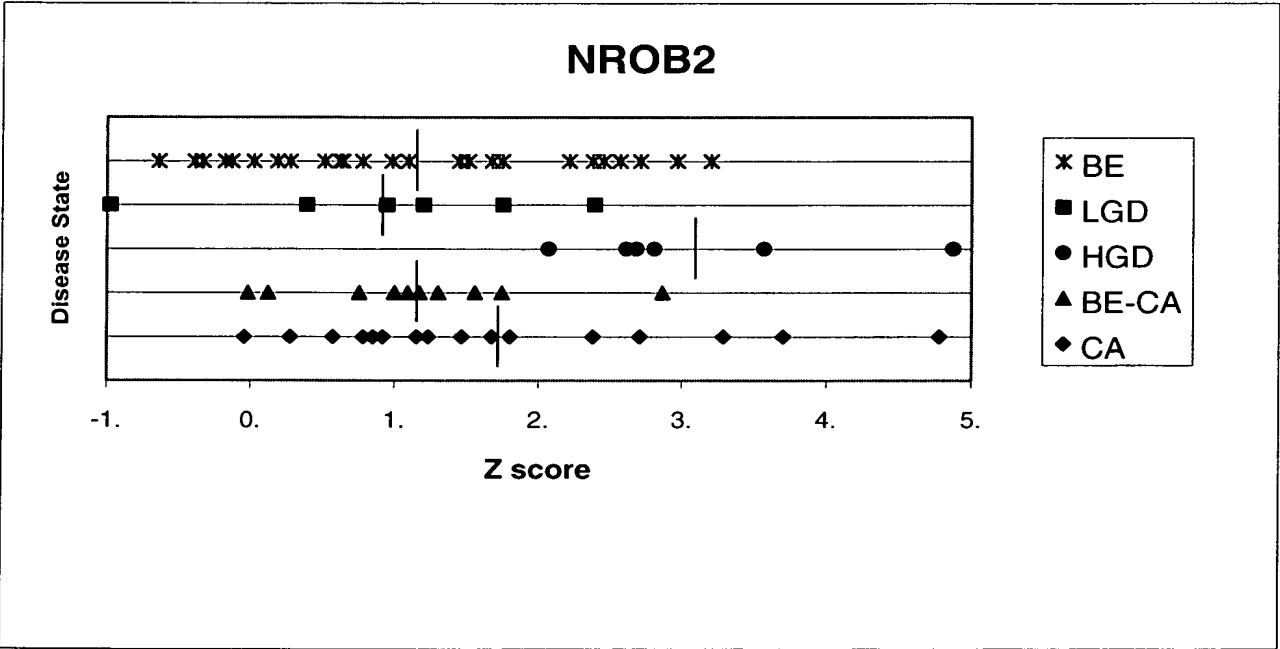


Figure 3A

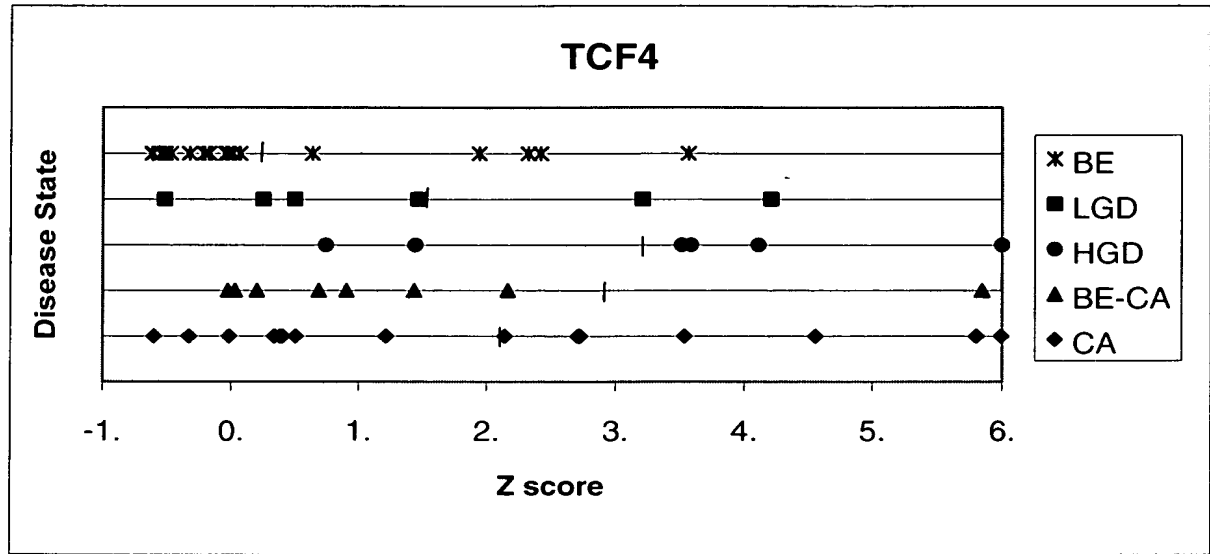
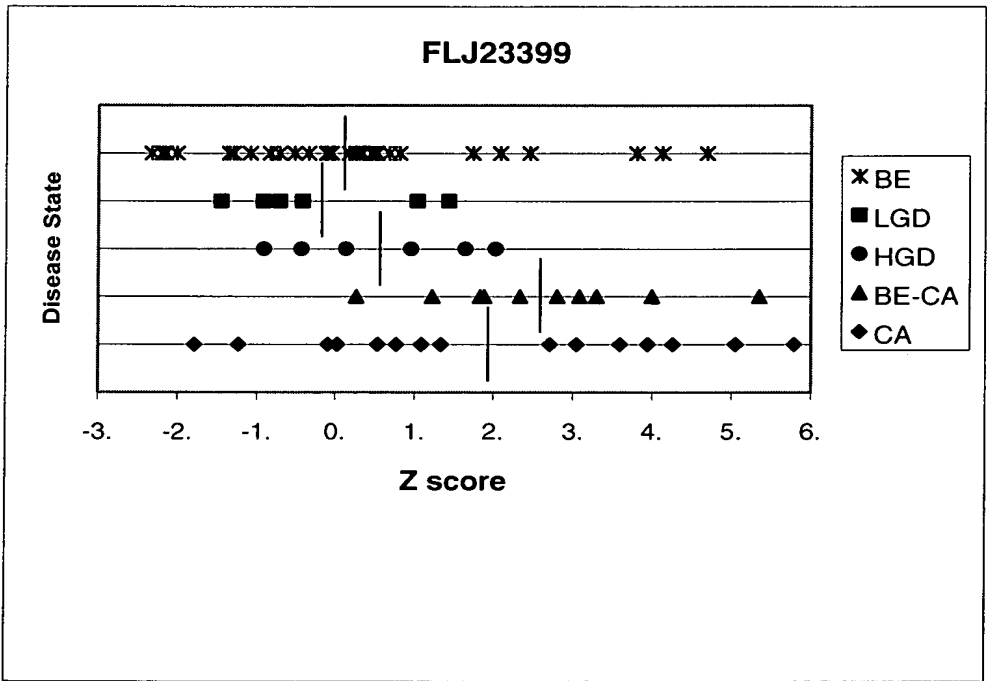


Figure 3B



4/115

ET-1 (endothelin-1, NM_001955)

```

1  cgccgcgtgc gcctgcagac gctccgctcg ctgccttctc tcctggcagg cgctgccttt
61  tctccccgtt aaagggcact tgggctgaag gatcgctttg agatctgagg aaccgcgagc
121 gctttgaggg acctgaagct gtttttcttc gttttccttt ggggttcagtt tgaacgggag
181 gtttttgatc cttttttttc agaatggatt atttgctcat gattttctct ctgctgtttg
241 tggcttgcca aggagctcca gaaacagcag tcttaggcgc tgagctcagc gcggtgggtg
301 agaacggcgg ggagaaaccc actcccagtc caccctggcg gctccgccgg tccaagcgct
361 gctcctgctc gtccctgatg gataaagagt gtgtctactt ctgccacctg gacatcattt
421 gggccaacac tcccagcac gttgttccgt atggacttgg aagccctagg tccaagagag
481 ccttgagaaa ttacttccc acaaaggcaa cagaccgtga gaatagatgc caatgtgcta
541 gccaaaaaga caagaagtgc tggaattttt gccaaagcagg aaaagaactc agggctgaag
601 acattatgga gaaagactgg aataatcata agaaaggaaa agactgttcc aagcttggga
661 aaaagtgtat ttatcagcag ttagtgagag gaagaaaaat cagaagaagt tcagaggaac
721 acctaagaca aaccaggctg gagaccatga gaaacagcgt caaatcatct tttcatgatc
781 ccaagctgaa aggcaatccc tccagagagc gttatgtgac ccacaaccga gcacattggg
841 gacagacctt cggggcctgt ctgaagccat agcctccacg gagagccctg tggccgactc
901 tgcactctcc accctggctg ggatcagagc aggagcatcc tctgctgggt cctgactggc
961 aaaggaccag cgtcctcggt caaaacattc caagaaaggt taaggagttc cccaacat
1021 cttcactggc ttccatcagt ggtaactgct ttggtctctt ctttcatctg gggatgacaa
1081 tggacctctc agcagaaaca cacagtcaca ttcgaattcg ggtggcatcc tccggagaga
1141 gagagaggaa ggagattcca cacaggggtg gagtttctga cgaaggctct aagggtgtgt
1201 ttgtgtctga ctcaggcgcc tggcacattt caggagaaaa ctccaaagtc cacacaaaga
1261 ttttctaagg aatgcacaaa ttgaaaacac actcaaaaga caaacatgca agtaaagaaa
1321 aaaaaaaaaa aaaa (SEQ ID NO:1)

```

FIGURE 4A

ET-1 (endothelin-1, NM_001955)

```

MDYLLMIFSLLFVACQGAPETA VLGAELSAVGENGGEKPTSPSP
RLRRSKRCSLMDKECVYFCHLDI IWVNTPEHVVPYGLGSPRSKRALENLLPTKA
TDRENRCQASQDKKCNFCQAGKELRAEDIMEKDWNHKKGKDCSKLGKKCIYQQL
VRGRKIRRSSEHLRQTRSETMRNSVKSSFHDPKLGKGNPSRERYVTHNRAHW (SEQ ID NO:2)

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FIGURE 4B

5/115

AGR2 (anterior gradient 2 (Xenopus laevis) homolog, NM_006408)

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1  ccgcataccta gccgccgact cacacaaggc aggtgggtga ggaaatccag agttgccatg
61 gagaaaattc cagtgtcagc attcttgctc cttgtggccc tctcctacac tctggccaga
121 gataccacag tcaaacctgg agccaaaaag gacacaaagg actctcgacc caaactgccc
181 cagaccctct ccagaggttg gggtgaccaa ctcatctgga ctccagacata tgaagaagct
241 ctatataaat ccaagacaag caacaaaccc ttgatgatta ttcatacactt ggatgagtgc
301 ccacacagtc aagctttaaa gaaagtgttt gctgaaaata aagaaatcca gaaattggca
361 gagcagtttg tctcctcaa tctggtttat gaaacaactg acaaaacacct ttctcctgat
421 ggccagtatg tccccaggat tatgtttgtt gacccatctc tgacagttag agccgatatc
481 actggaagat attcaaactg tctctatgct tacgaacctg cagatacagc tctgttgctt
541 gacaacatga agaaagctct caagttgctg aagactgaat tgtaaagaaa aaaaatctcc
601 aagcccttct gtctgtcagg ccttgagact tgaaaccaga agaagtgtga gaagactggc
661 tagtgtggaa gcatagtga cacactgatt aggttatggt ttaatgttac aacaactatt
721 ttttaagaaa aacaagtttt agaaatttgg tttcaagtgt acatgtgtga aaacaatatt
781 gtatactacc atagtgagcc atgattttct aaaaaaaaaa ataaatgttt tgggggtgtt
841 ctgttttctc caacttggtc tttcacagtg gttcgtttac caaataggat taaacacaca
901 caaatgctc aaggaaggga caagacaaaa ccaaaactag ttcaaatgat gaagacaaaa
961 gaccaagtta tcatctcacc acaccacagg ttctcactag atgactgtaa gtagacacga
1021 gcttaatcaa cagaagtatc aagccatgtg ctttagcata aaagaatatt tagaaaaaca
1081 tccaagaaa atcacatcac tacctagagt caactctggc caggaactct aagggtacaca
1141 ctttcattta gtaattaaat tttagtcaga ttttgcccaa cctaattgctc tcagggaag
1201 cctctggcaa gtagctttct ccttcagagg tctaatttag tagaaaggtc atccaaagaa
1261 catctgcact cctgaacaca ccctgaagaa atcctgggaa ttgacctgtg aatcgatttg
1321 tctgtcaagg tcctaaagta ctggagtga ataaattcag ccaacatgtg actaattgga
1381 agaagagcaa aggggtggtga cgtgttgatg aggcagatgg agatcagagg ttactagggt
1441 ttaggaaacg tgaaaggctg tggcatcagg gtaggggagc attctgccta acagaaatta
1501 gaattgtgtg ttaatgtctt cactctatac ttaatctcac attcattaat atatggaatt
1561 cctctactgc ccagccctc ctgatttctt tggccctgg actatggtgc tgtatataat
1621 gctttgcagt atctgttgc tgtcttgatt aacttttttg gataaaacct tttttgaaca
1681 gaaaaaaaaa aaaaaaaaaa a (SEQ ID NO:3)

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FIGURE 5A

AGR2 (anterior gradient 2 (Xenopus laevis) homolog, NM_006408)

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MEKIPVSAFLLLVALSITLARDTTVKPGAKKDKDSRPKLPQTL
SRGWDQLIWTQTYEEALYKSKTSNKPLMI IHHLDECPHSQALKKVFENKEIQKLAE
QFVLLNLVYETTDKHLSPDGQYVPRIMFVDPSTVTRADITGRYSNRLYAYEPADTALL
LDNMKKALKLLKTEL (SEQ ID NO:4)

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FIGURE 5B

6/115

ADAM8 (NM_001109)

```

1  gacccggcca  tgcgcggcct  cgggctctgg  ctgctgggcg  cgatgatgct  gcctgcgatt
61  gccccagacc  ggccctgggc  cctcatggag  cagtatgagg  tcgtgttgcc  gcggcgctctg
121  ccaggccccc  gagtccgccc  agctctgccc  tcccacttgg  gcctgcaccc  agagaggggtg
181  agctacgtcc  ttggggccac  agggcacaac  ttcaccctcc  acctgcggaa  gaacagggac
241  ctgctggggt  ccggctacac  agagacctat  acggctgcca  atggctccga  ggtgacggag
301  cagcctcgcg  ggcaggacca  ctgcttatac  cagggccacg  tagaggggta  cccggactca
361  gccgccagcc  tcagcacctg  tgccggcctc  aggggtttct  tccaggtggg  gtcagacctg
421  cacctgatcg  agccctgga  tgaagggtgg  gagggcggac  ggcacgcct  gtaccaggct
481  gagcacctgc  tgcagacggc  cgggacctgc  ggggtcagcg  acgacagcct  gggcagcctc
541  ctgggacccc  ggacggcagc  cgtcttcagg  cctcggcccc  gggactctct  gccatcccga
601  gagaccgcgt  acgtggagct  gtatgtggtc  gtggacaatg  cagagttcca  gatgctgggg
661  agcgaagcag  ccgtgcgtca  tcgggtgctg  gaggtggtga  atcacgtgga  caagctatat
721  cagaaactca  acttcctgtg  ggtcctgggt  ggcctggaga  tttggaatag  tcaggacagg
781  ttccacgtca  gccccgaccc  cagtgtcaca  ctggagaacc  tcctgacctg  gcaggcacgg
841  caacggacac  ggccggcacct  gcatgacaac  gtacagctca  tcacgggtgt  cgacttcacc
901  gggactactg  tggggtttgc  cagggtgtcc  gccatgtgct  cccacagctc  aggggctgtg
961  aaccaggacc  acagcaagaa  ccccggtggc  gtggcctgca  ccatggccca  tgagatgggc
1021  cacaacctgg  gcatggacca  tgatgagaac  gtccagggtc  gccgctgcca  ggaacgcttc
1081  gaggccggcc  gctgcatcat  ggcaggcagc  attggctcca  gtttccccag  gatgttcagt
1141  gactgcagcc  aggcctacct  ggagagcttt  ttggagcggc  cgcagtcggg  gtgcctcgcc
1201  aacgcccctg  acctcagcca  cctggtgggc  ggccccgtgt  gtgggaacct  gtttgtggag
1261  cgtggggagc  agtgcgactg  cggccccccc  gaggactgcc  ggaaccgctg  ctgcaactct
1321  accacctgcc  agctggctga  gggggccca  tgtgcgcacg  gtacctgctg  ccaggagtgc
1381  aaggtgaagc  cggctggtga  gctgtgccgt  cccaagaagg  acatgtgtga  cctcgaggag
1441  ttctgtgacg  gccggcaccc  tgagtgcctg  gaagacgcct  tccaggagaa  cggcacgccc
1501  tctccgggg  gctactgcta  caacggggcc  tgtcccacac  tggcccagac  gtgccaggcc
1561  ttctgggggc  caggtgggca  ggctgcccag  gagtccctgt  tctcctatga  catcctacca
1621  ggctgcaagg  ccagccggta  cagggtgac  atgtgtggcg  ttctgcagtg  caagggtggg
1681  cagcagcccc  tggggcgtgc  catctgcatc  gtggatgtgt  gccacgcgct  caccacagag
1741  gatggcactg  cgtatgaacc  agtcccagag  ggcaccgggt  gtggaccaga  gaaggtttgc
1801  tggaaaggac  gttgccagga  cttacacgtt  tacagatcca  gcaactgctc  tgcccagtgc
1861  cacaacctat  ggggtgtgaa  ccacaagcag  gagtgccact  gccacgcggg  ctggggccccg
1921  cccactgcg  cgaagctgct  gactgaggtg  cacgcagcgt  ccgggagcct  ccccgctctc
1981  gtggtggtgg  ttctggtgct  cctggcagtt  gtgctggtca  ccttggcagg  catcatcgct
2041  taccgcaaag  cccggagccg  catcctgagc  aggaacgtgg  ctcccagac  cacaatgggg
2101  cgctccaacc  ccctgttcca  ccaggctgcc  agccgcgtgc  cggccaaggg  cggggctcca
2161  gccccatcca  gggggcccca  agagctggtc  cccaccaccc  acccgggcca  gcccggccga
2221  caccggcct  cctcggtggc  tctgaagagg  ccgccccctg  ctctccgggt  cactgtgtcc
2281  agcccacct  tcccagttcc  tgtctacacc  cggcaggcac  caaagcaggt  catcaagcca
2341  acgttcgcac  ccccagtgcc  cccagtcaaa  cccggggctg  gtgcggccaa  ccctgggtcca
2401  gctgaggggt  ctgttgcccc  aaaggttgcc  ctgaagcccc  ccatccagag  gaagcaagga
2461  gccggagctc  ccacagcacc  ctaggggggc  acctgcgcct  gtgtggaaat  ttggagaagt
2521  tgcggcagag  aagccatgcg  ttccagcctt  ccacggtcca  gctagtgcg  ctacgcccta
2581  gaccctgact  ttgcaggctc  agctgtgtgt  ctaacctcag  taatgcatct  acctgagagg
2641  ctctgtgtgt  ccacgcctc  agccaattcc  ttctccccgc  cttggccacg  tgtageccca
2701  gctgtctgca  ggcaccaggc  tgggatgagc  tgttgtcttg  cgggtgcgtg  tgttgttacg
2761  tgtctccagg  tggccgctgg  tctcccgtg  tgttcaggag  gccacatata  cagccccctc
2821  cagccacacc  tgccctgct  ctggggcctg  ctgagccggc  tgccctgggc  acccgggtcc
2881  aggcagcaca  gacgtggggc  atccccagaa  agactccatc  ccaggaccag  gttccccctc
2941  gtgctcttcg  agagggtgtc  agtgagcaga  ctgcacccca  agctcccagc  tccagggtcc
3001  ctgatcttgg  gctgttttcc  catgggattc  aagagggaca  gccccagctt  tgttgtgtgt
3061  taagcttagg  aatgcccttt  atggaaaggg  ctatgtggga  gactcagcta  tcttgtctgg
3121  ttttcttgag  acctcagatg  tgtgttcagc  agggctgaaa  gcttttatcc  ttttaataatg
3181  agaaatgtat  attttactaa  taaattattg  accgagttct  gtagattctt  gttaga (SEQ

```

ID NO:5)

FIGURE 6A

7/115

ADAM8 (NM_001109)

MRGLGLWLLGAMMLPAIAPSRPWALMEQYEVVLPERRLPGPRVRR
ALPSHLGLHPERVSYVLGATGHNFTLHLRKNRDLLGSGYTETETYTAANGSEVTEQPRGQ
DHCLYQGHVEGYPDASAASLSTCAGLRGFFQVGS DLHLIEPLDEGGEGGRHAVYQAEHL
LQTAGTCGVSDDSLGSLLGPRTAAVFRPRPGDSLPSRETRYVELYVVVDNAEFQMLGS
EAAVRHRVLEVVNHVDKLYQKLNFRVVLVGLIWN SQDRFHVSPDPSVTLENLLTWQA
RQRTRRHLHDNVQLITGVDFGTGTVGFARVSAMCSHSSGAVNQDHSKNPVG VACTMAH
EMGHN LGMDHDENVQGCRCQERFEAGRCIMAGSIGSSFPRMFSDCSQAYLESFLERPQ
SVCLANAPDL SHLVGGPVCNLFVERGEQCD CGPPEDCRNRCCNSTTCQLAEGAQCAH
GTCCQECKVKPAGELCRPKKDMCDLEEFCDGRHPECPEDAFQENGTPCSGGYCYNGAC
PTLAQQCQAFWGP GGQAAEESCF SYDILPGCKASRYRADMCGVLQCKGGQQPLGRAIC
IVDVCHALT TEDGTAYEPVPEGTRCGPEKVCWKGR CQDLHVYRSSNCSAQCHNHGVCN
HKQECHCHAGWAPPHCAKLLTEVHAASGSLPVLVVVVLVLLAVVLVTLAGIIVYRKAR
SRILSRNVAPKTTMGRSNPLFHQAASRVPAKGGAPAPSRGPQELVPTTHPGQPARHPA
SSVALKRPPPPAPPVTVSSPPFPVPVYTRQAPKQVIKPTFAPPVPPVKPGAG AANPGPA
EGAVGPKVALKPPIQRKQGAGAPTAP (SEQ ID NO:6)

FIGURE 6B

8/115

PRSS8 (Prostasin precursor, serine protease, NM_002773)

```

1  gacttttggtg gcaagaggag ctggcggagc ccagccagtg ggcggggcca ggggaggggc
61  gggcaggtag gtgcagccac tcctgggagg accctgcgtg gccagacggt gctggtgact
121 cgtccacact gctcgcttcg gatactccag gcgtctcccg ttggggccgc tccctgcctt
181 agaggccagc cttggacact tgctgccctt ttccagcccg gattctggga tccttccttc
241 tgagccaaca tctgggtcct gccttcgaca ccacccaag gcttcctacc ttgctgcct
301 ggagtctgcc ccagggggccc ttgtcctggg ccatggccca gaaggggggc ctggggcctg
361 ggcagctggg ggctgtggcc attctgctct atcttgatt actccggctg gggacaggag
421 cggaaggggc agaagctccc tgcggtgtgg cccccaagc acgcatcaca ggtggcagca
481 gtgcagtcgc cggtcagtgg ccctggcagg tcagcatcac ctatgaaggc gtccatgtgt
541 gtgggtggctc tctcgtgtct gagcagtggg tgctgtcagc tgctcactgc ttcccagcg
601 agcaccacaa ggaagcctat gaggtcaagc tgggggcccc ccagctagac tcctactccg
661 aggacgccaa ggtcagcacc ctgaaggaca tcatccccc cccagctac ctccaggagg
721 gctcccaggg cgacattgca ctctccaac tcagcagacc catcaccttc tcccgtaca
781 tccggcccat ctgcctccct gcagccaacg cctccttccc caacggcctc cactgcactg
841 tcactggctg gggtcattgtg gccccctcag tgagcctcct gacgccccaa ccactgcagc
901 aactcgaggt gcctctgatc agtcgtgaga cgtgtaactg cctgtacaac atcgacgcca
961 agcctgagga gccgcacttt gtccaagagg acatgggtgtg tgctggctat gtggaggggg
1021 gcaaggacgc ctgccagggt gactctgggg gccactctc ctgccctgtg gaggtctctt
1081 ggtacctgac gggcatttgt agctggggag atgcctgtgg ggcccgaac aggcctggtg
1141 tgtacactct ggccctccagc tatgcctcct ggatccaaag caaggtgaca gaactccagc
1201 ctctgtgtgt gccccaaacc caggagtccc agcccagacg caacctctgt ggcagccacc
1261 tggccttcag ctctgcccc ccccagggt tgctgaggcc catccttttc ctgcctctgg
1321 gcctggctct gggcctcctc tccccatggc tcagcgagca ctgagctggc cctacttcca
1381 ggatggatgc atcacactca aggacaggag cctggtcctt ccctgatggc ctttggaccc
1441 agggcctgac ttgagccact ccttccttca ggactctgcg ggaggctggg gccccatctt
1501 gatctttgag cccattcttc tgggtgtgct ttttgggacc atcactgaga gtcaggagtt
1561 ttactgcctg tagcaatggc cagagcctct ggcccctcac ccacctgga ccagcccatt
1621 ggccgagctc ctggggagct cctgggaccc ttggctatga aaatgagccc tggctcccac
1681 ctgtttctgg aagactgctc ccggccccgc tgcccagact gatgagcaca tctctctgcc
1741 ctctccctgt gttctgggct ggggccacct ttgtgcagct tcgaggacag gaaaggcccc
1801 aatcttgccc actggccgct gagcgcccc gagccctgac tcctggactc cggaggactg
1861 agccccacc ggaactgggc tggcgcttgg atctggggtg ggagtaacag ggcagaaatg
1921 attaaaatgt ttgagcac (SEQ ID NO:7)

```

Figure 7A

9/115

PRSS8 (Prostasin precursor, serine protease, NM_002773)

MAQKGVLGPGQLGAVAILLYLGLLRSGTGAEGAEAPCGVAPQAR
ITGGSSAVAGQWPWQVSITYEGVHVC GGSLVSEQWVLSAAHCFPSEHHKEAYEVKLGA
QLDSYSEDAKVSTLKDIIPHPSYLQEGSQGDIALQLSRPITFSRYIRPICLPAANA
SFPNGLHCTVTGWGHVAPSVSL LTPKPLQQLEVPLISRETCNCLYNIDAKPEEPHFVQ
EDMVCAGYVEGGKDACQGDSGGPLSCPVEGLWYLTGIVSWG DACGARNRPGVYTLASS
YASWIQSKVTELQPRVVPQTQESQPD SNLCGSHLAFSSAPAQGLLRPILFLPLGLALG
LLSPWLSEH (SEQ ID NO:8)

Figure 7B

10/115

AXO1 (Axonin-1 precursor, NM_005076)

```

1  acacacacgc gccctcaccc gccaccgccc ccgcggccgc cgccgcaccc ggacagcgag
61  cggctgaggg cgccagggcc caaaggacag cggcccagac aggggctggc ggcccggccg
121  gccccggctc accgactcgg gcagcatcca cctgccccag ccaacaccct tctctcgccc
181  caggctcttt ctacgcctcc agctgggctg tcccgaagct gagctgaggg tcttctcctc
241  cgatccccac ctctgcccgg acatccacca tggggacagc caccaggagg aagccacacc
301  tgctgctggt agctgctgtg gcccttgtct cctcttcagc ttggagtcca gccctgggat
361  cccaaaccac cttegggcct gtctttgaag accagccctt cagtgtgcta tcccagagg
421  agtccacgga ggagcaggtg ttgctggcat gccgcgcccg ggccagccct ccagccacct
481  atcggtgga gatgaatggt accgagatga agctggagcc aggttcccgt caccagctgg
541  tggggggcaa cctggtcac atgaaccca ccaaggcaca ggatgccggg gtctaccagt
601  gcctggcctc caacccagtg ggcaccgttg tcagcaggga ggccatcctc cgcttcggct
661  ttctgcagga attctccaag gaggagcgag acccagtga agctcatgaa ggctgggggg
721  tgatgttgcc ctgtaaccca cctgcccact acccaggctt gtccatccgc tggctcctca
781  acgagttccc caacttcac cgcagcgagc ggctgcactt cgtgtccag accacaggga
841  acctgtacat tgcccgaacc aatgcctcag acctgggcaa ctactcctgt ttggccacca
901  gccacatgga cttctccacc aagagcgtct tcagcaagtt tgctcagctc aacctggctg
961  ctgaagatac ccggtctctt gcaccagca tcaaggcccg gttcccagca gagacctatg
1021  cactggtggg gcagcaggtc accctggagt gcttcgcctt tgggaacct gtcccccgga
1081  tcaagtggcg caaagtggac ggctccctgt cccgcagtg gaccacagct gagcccaccc
1141  tgcagatccc cagcgtcagc tttgaggatg agggcaccta cgagtgtgag gcggagaact
1201  ccaagggccg agacaccgtg caggggccga tcactcgtga ggctcagcct gagtggctaa
1261  aagtgatctc ggacacagag gctgacattg gctccaacct gcgttggggc tgtgcagccg
1321  ccggcaagcc ccggcctaca gtgcgctggc tgcggaacgg ggagcctctg gcctcccaga
1381  accgggtgga ggtgttggtt ggggacctgc ggcttctcaa gctgagcctg gaagactcgg
1441  gcatgtacca gtgtgtggca gagaataagc acggtaccat ctacgccagc gccgagctag
1501  ccgtgcaagc actcgcctct gacttcaggc tgaatcccgt gaggcgtctg atcccccgcg
1561  cccgcggggg agagatcctt atccccctgc agccccgggc agtccaaag gccgtggtgc
1621  tctggagcaa aggcacggag attttggtca acagcagcag agtgactgta actccagatg
1681  gcaccttgat cataagaaac atcagccggt cagatgaagg caaatacacc tgctttgctg
1741  tgaacttcac gggcaaaagg aacagcactg gaatcctatc tgtgcgagat gcaacaaaaa
1801  taactctagc cccctcaagt gccgacatca acttgggtga caacctgacc ctacagtgcc
1861  atgcctccca cgaccccaac atggacctca ccttcacctg gacctggac gacttcccca
1921  tcgactttga taagcctgga gggcactacc ggagaactaa tgtgaaggag accattgggg
1981  atctgacat cctgaacgcc cagctgcgcc atggggggaa gtacacgtgc atggcccaga
2041  cgggtggtga cagcgcgtcc aaggaggcca cagtccctgt ccgaggtccg ccaggtcccc
2101  caggaggtgt ggtggtgagg gacattggcg acaccacat ccagctcagc tggagccgtg
2161  gcttcgacaa ccacagcccc atcgttaagt acacctgca agctcgcact ccacctgcag
2221  ggaagtggaa gcaggttcgg accaatcctg caaacatcga gggcaatgca gagactgcac
2281  aggtgctggg cctcaccccc tggatggact atgagttccg ggtcatagcc agcaacattc
2341  tgggcactgg ggagcctagt gggccctcca gcaaaatccg gaccaggga gcagccccct
2401  cgggtggcacc ctcaggactc agcggaggag gtggagcccc cggagagctc atcgtcaact
2461  ggacgcccac gtcacgggag taccagaacg gagacggctt cggctacctg ctgtccttcc
2521  gcaggcaggg cagcactcac tggcagaccg cccgggtgcc tggcgccgat gcccagtagt
2581  ttgtctacag caacgagagc gtccggccct acacgccctt tgaggtcaag atccgcagct
2641  acaaccgccc cggggatggg cccgagagcc tcaactgcact cgtgtactca gctgaggaag
2701  agcccagggt gggccctacc aaggtgtggg ccaaaggggt ctcatcctca gagatgaacg
2761  tgacctggga acccgtgcag caggacatga atggtatcct cctggggatc gagatccgct
2821  actggaaaagc tggggacaaa gaagcagctg cggaccgagt gaggacagca gggctggaca
2881  ccagtgcccg agtcagcggc ctgcatccca acccaagta ccatgtgacc gtgagggcct
2941  acaaccgggc tggcactggg cctgccagcc cttctgccaa cgccacgacc atgaagcccc
3001  ctccgcggcg acctcctggc aacatctcct ggactttctc aagctctagt cttagcatta
3061  agtgggaccc tgtggtccct ttccgaaatg agtctgcagt caccggctat aagatgctgt

```

FIGURE 8A

11/115

```

3121 accagaatga cttacacctg actcccacgc tccacctcac cggcaagaac tggatagaaa
3181 tcccagtgcc tgaagacatt ggccatgccc tggtacaaat tcggaccaca gggcccggag
3241 gggatgggat ccctgcagaa gtccacatcg tgaggaatgg aggcacaagc atgatggtgg
3301 agaacatggc agtccgcccc gcaccacacc ctggcaccgt catttcccac tccgtggcga
3361 tgctgatcct cataggtctc ctggagctct gatcctggaa cccctccctc tgcgccgag
3421 ctggacgcca cctccgacgg acacagccag ccccttctct ctgccaaggt ggctgacac
3481 tgtgccagag agtggctggt tttaaatacc tactttaaac agtgcccttt ttgtaggagg
3541 taggatatth tatattctgc cgcaggatag aaccacgca aggattttct ttaaattgag
3601 aggcaccagg cagtaacttc catgatgaca ctgacgccta tacctgagct ctaggctgcc
3661 tggagggag gaacaggccc atgggaagaa gggggtttta aaaacatgtc ttcaactcag
3721 cagagatggc cctctgggac cctatacggg ctccgccact tgagagcagt cctaggccccg
3781 gcaggaacac cagacatgaa cagggtgaag aactggagcg aagtgcacac ctcaccatcc
3841 ttcagtctaa ggaagaaggg caagccctgg gaccaagagc tctcccgcct tctccctcga
3901 gcagcagcaa ggaccctgac gctgtccccg ataactccct aggggtctct gcctgcccac
3961 gcggctgaga accagcgcct cgatgcctga ggctgggagc ctgagccctc tcagctttga
4021 ggggggtgat actccaggct gtttggggtg ggagccaaaa agagttgaga gggcagggcc
4081 cttggtggaa aggggcacca gccttggctc gagatagtca caaccagggt gacgatggcc
4141 tctcagccaa cactgccaac ctgaccctgt catcccgatt gacagcgcca cttcagggtg
4201 ctgggtgact aaagggtctg tcttgggtgg gtctcccacc cctccaagac ccattctgca
4261 cagtccctcc aggggtttggg caggagatgg ccaatcatgc gccacacctc ccagtgtctg
4321 ctgcagtcag ctccggcctcc ccgacctgca gcccagact ctgctctccc agcactgact
4381 cactcctgcc tgggagggga atgcagcatt catgctgtgt gtccctggat tgggaggttt
4441 ctgggaaggg cagaggataa atgtggccct gcctgtctcc aggtatactc aggaccacct
4501 ggccagatcc gctcccagac ggctctggag tgcttgcatc tccccggaga aaaaggggtt
4561 aataaatggg ccataccttc ctgagctctg ggtatactac cagtacaga acgtcagagc
4621 tggagaagc cttagagctc aacttcttca agccctcac tttacagatg aggaaatgga
4681 ggtggtccag agagggtctg ggattcccaa ggtcacacag ccagaagag atggggctgg
4741 gttaagaact cgagtcttcc accttctgt tcaaggctgt ttgtctaccc agaggaagga
4801 ggcactgctg aatggctatg gcctggctaa gaagggtgatt agtcagtagg gtgtgaaaat
4861 tctacttcaa ggggttcgga ttggtgatca tggggattgg catggtctgg tttccgtcca
4921 aggtgtgggc agagcttcta ccaaacttca acatggaggg ctgacttgaa gctccctgtc
4981 cccctcactc ttgccccaa gaaaagaggcc aaagcaagag cagattccct aggcaagagc
5041 agcagacaaa ctaggaacc ccaaagccca tgcctcgaca ggtggccctt cacagggggc
5101 agcgggacag gcatcttgaa gggcatatgt cctcggaagc tccgagcctg ttttctgtag
5161 tttatagtta gagctctatt ttgttatggt tttttaaaact ttttaagtcct gctctattht
5221 cctgggcagg tttatgttga tgtttacca ctacaattht ttaaaaatat aagctcacat
5281 gcctthtccc tgccacagcc aaacccccac tgcaccctac ccacccaccc ctagcccagg
5341 tcagctthtcc tggagctggc taatgaaagc ctctcacct cttcccaccc cttacaagca
5401 aggggtgctag gggctcagct atacgacct tctccctgac agggagtcca aacttggcct
5461 agcatccctc ctggccccc tctggccacg acttggcctg tgcttggttc tctatcagaa
5521 aggggatgct gaacaaaacc tcttcccaag ttttatccaa ttcgttcttc attgcctcgg
5581 gctgctcag ggaagcagg ggacagggtg ccagttgctg ggccgagga ggagctggtt
5641 tggcatagga cctaaccagt gaagctagag gctacagcca ctaaaactgc ttcaggccaa
5701 cgatagtta tcaaaagtaa gtacctaat gctaagtagg tccactaaaa aggggaggaa
5761 ggcagacctc ctgggagacc cacgaagggt ttttagccag ggaaaactga gcccaggaa
5821 aacctaacca ctgggcaggc agaatttgtt tgagggatag aacgacaaca aaataaatgt
5881 tcctgcagcc tgagatttca ggtagagtac tgactaaggt ttaataagac aataggtgac
5941 ctgaggacat gcaagcttgt aaaatgcaac agcctcctgc tagagtgact tgtacatgag
6001 cttgcttgca gaagactaga ttagatgttt ctcaggatcc cctcctgcgc aggggttctc
6061 tgattthtct gttctctgcc cagatgggct gggggagttg agagtgtgct tatthtctc
6121 gcgatcatga gaccacagtt ctgggttatc tctctcata catcaagccc cagaggaggc
6181 ggcaagagga acagccacaa acaagtactt taccacacag cttagtggcc agtaaacacc

```

FIGURE 8B

12/115

```

6241 ctgggggacta ggaaaaaggaa ccaactgtag gcacctctcc agggcctagg gagacaagtg
6301 tcctctcttc tgcatatatt tgggctcccc ttacagagcc ctttgccctg gctctctggt
6361 ccttggtgct ctaacagtcc agatgtacac ccagcctcag ggggaaggca gctctctcca
6421 gacagagtct cagggccag caaggtcagg ttatctgctt catttcagg caacaaatga
6481 tacaaatggt gccagggagt ggcaaggcca tgggggtagg tgggggtgtc tttttctttt
6541 cataaagtaa caacagacga gactgagggt aaacatcaga aaaaaacctc tggaatgacc
6601 ttctctcatc caggaggccc tggaataagg aagaggcttc tttctgaggg agctttgagg
6661 aattttgaca gctgttgaca tgggatttgg gaaagggtgaa gctgtgactg gaggggcagg
6721 agatggtcca agtgtccatc cagagatgag actcttagaa tcaaagtgtt cagcccagga
6781 agtcttgag atcccacct ctgtggccct gcaccttatg ggaagccatt aagggggctc
6841 atctaggaat tctggttaca gcccagtgtc catcccagcg tatgtgcct ctttagggca
6901 gcccgaagg ccagccagcc tgtactctgg gcaagagccc aaaatggcta ggaatgtttg
6961 actcccttaa tctcttcccc agctacagag gaatcttttc tctgcctggg ctcagaatgg
7021 gactgccaac tgggtcattg gtgggagaca cagtatctc aaacctgtgg cactggcat
7081 gacagtgggt ctctgtctcc ctgggtgaca cccaccctag gcttctctc ggatgtgatg
7141 gggattgcca gagaggctct tagcataaaa ggcattaggt gggcattttt ctgtgtgccc
7201 caaaaaagct ccatggaaac aggcacctgg tagctgcgga acaccgtgg acttgtgtat
7261 atggtcatag gctttgggaa gacaggacgt aaaggaaaat gagagaaaca aaatgggtca
7321 gatagctttg gccacagccc caggcagcct ttggggccta tgacacttag tgcccttaga
7381 tgggatacat cttgcctcgg cccaagact cctccaactt acccgctcca tccagggcct
7441 gcacagctta gagaggctca cagcttggca aatgctaggg cttcatcaga cactgactt
7501 gactcagtgt ttgttaaaat ggaaccactc ccgttggcct actgtttctc tctgtactt
7561 cttgtaatga tagttattta ttgactctgg tagcaggcag ttcttaaata aagatgggtt
7621 ctcaacctgt tggggaaaaa aaaaaaaaaa (SEQ ID NO:9)

```

Figure 8C

13/115

AXO1 (Axonin-1 precursor, NM_005076)

MGTATRRKPHLLLVAVALVSSSAWSSALGSQTTFGPVFEDQPL
SVLFPEESTEEQVLLACRARASPPATYRWKMNGTEMKLEPGSRHQLVGGNLVIMNPTK
AQDAGVYQCLASNPVGTVVSREAILRFGFLQEFKSKEERDPVKAHEGWGVMPLPCNPPAH
YPGLSYRWLLNEFPNFIPTDGRHFVSQTTGNLYIARTNASDLGNYSLATSHMDFSTK
SVFSKFAQLNLAAEDTRLFAPSIAKARFPAETYALVGQQVTLECFAGNPVPRIKWRKV
DGSLSPQWTTAEPTLQIPSVSFEDEGTYECEAENSKGRDTVQGRIIVQAQPEWLKVIS
DTEADIGSNLRWGCAAAGKPRPTVRWLRNGEPLASQNRVEVLGDLRFSKLSLEDSCGM
YQCV AENKHGTIYASAE LAVQALAPDFRLNPVRR LI PAARGGEILI PCQPRAAPKAVV
LWSKGTEILVNSSRVTVTPDGTLIIRNISRSDGKYTCFAENFMGKANSTGILSVRDA
TKITLAPSSADINLGDNLTLQCHASHDPTMDLTFTWTLDDFPIDFDKPGGHYRRTNVK
ETIGDLTILNAQLRHGGKYTCMAQTVVDSASKEATVLVRGPPGPPGGVVVRDIGDTTI
QLSWSRGFDNHSP IAKYTLQARTPPAGKWKQVRTNPANIEGNAETAQVLGLTPWMDYE
FRVIASNILGTGEPSPGSSKIRTREAAPSVAPSGLSGGGGAPGELIVNWT PMSREYQN
GDGFGYLLSFRRQGSTHWQTARVPGADAQYFVYSNESVRPYTPFEVKIRSYNRRGDGP
ESLTALVYS AEEEEPRVAPTKVWAKGVSSSEMNV TWEPVQQDMNGILLGYEIRYWKAGD
KEAAADRVRTAGLDTSARVSGLHPNTKYHVTVRAYNRAGTGPASPSANATTMKPPRR
PPGNISWTFSSSSLSIKWDPVVPFRNESAVTGYKMLYQNDLHLTPTLHLTGKNWIEIP
VPEDIGHALVQIRTTGPGGDGIPAEVHIVRNGGTSMMVENMAVRPAPHPGTVISHSVA
MLILIGSLEL (SEQ ID NO:10)

Figure 8D

14/115

NROB2 (Nuclear hormone receptor, NM_021969)

```

1 gagctggaag tgagagcaga tccctaacca tgagcaccag ccaaccaggg gcctgccccat
61 gccagggagc tgcaagccgc cccgccattc tctacgcact tctgagctcc agcctcaagg
121 ctgtcccccg acccgtagc cgctgcctat gtaggcagca ccggcccgtc cagctatgtg
181 cacctcatcg cacctgccgg gaggccttgg atgttctggc caagacagtg gccttcctca
241 ggaacctgcc atccttctgg cagctgcctc cccaggacca gcggcggctg ctgcagggtt
301 gctggggccc cctcttcctg cttgggttgg cccaagatgc tgtgaccttt gaggtggctg
361 agggcccggg gcccagcata ctcaagaaga ttctgctgga ggagcccagc agcagtggag
421 gcagtggcca actgccagac agaccccagc cctccctggc tgcggtgcag tggcttcaat
481 gctgtctgga gtccttctgg agcctggagc ttagcccca ggaatatgcc tgcctgaaag
541 ggaccatcct cttcaacccc gatgtgccag gcctccaagc cgctcccac attgggcacc
601 tgcagcagga ggctcactgg gtgctgtgtg aagtccctgga accctgggtg ccagcagccc
661 aaggccgcct gaccctgtgc ctccctcagg cctccaccct caagtccatt ccgaccagcc
721 tgcttgggga cctcttcttt cgccctatca ttggagatgt tgacatcgct ggccttcttg
781 gggacatgct tttgctcagg tgacctgttc cagcccaggc agagatcagg tgggcagagg
841 ctggcagtgc tgattcagcc tggccatccc cagaggtgac ccaatgctcc tggaggggca
901 agcctgtata gacagcactt ggctccttag gaacagctct tcaactagcc acaccccaca
961 ttggacttcc ttggtttgga cacagtgtc cagctgctg ggaggctttt ggtggtcccc
1021 acagcctctg ggccaagact cctgtccctt cttgggatga gaatgaaagc ttaggctgct
1081 tattggacca gaagtccat cgactttata cagaactgaa ttaagttatt gatttttgta
1141 ataaaaggta tgaaacacta aaaaaaaaa (SEQ ID NO:11)

```

FIGURE 9A

NROB2 (Nuclear hormone receptor, NM_021969)

```

MSTSQPGACPCQGAASRPAILYALLSSSLKAVPRPRSRCLCRQH
RPVQLCAPHRTCREALDVLAKTVAFRLNLPFWQLPPQDQRRLLQGCWGPLFLLGLAQ
DAVTFEVAEAPVPSILKKILLEPSSSGSGQLPDRPQPSLAQVWLQCCLESFWSLE
LSPKEYACLKGTILFNPDPGLQAASHIGHLQOEAHWVLCEVLEPWCPAAQGRLTRVL
LTASTLKSIPSTLLGDLFFRPIIGDVDIAGLLGDMLLLR (SEQ ID NO:12)

```

FIGURE 9B

15/115

TM7SF1 (NM_003272)

```

1  cggcgcgatg  cgcggagacc  ccccgggggg  cggcgggcggc  cgtgagcccc  gatgaggccc
61  gagcgtcccc  ggccgcgcgg  cagcgcccc  ggcccgatgg  agaccccgcc  gtgggaccca
121  gcccgcacg  actcgtgcc  gccacgctg  accccggccg  tgcctcccta  cgtgaagctt
181  ggccctaccg  tcgtctacac  cgtgttctac  gcgctgctct  tcgtgttcat  ctacgtgcag
241  ctctggctgg  tgcctgcgta  ccgccacaag  cggctcagct  accagagcgt  cttcctcttt
301  ctctgcctct  tctgggcctc  cctgcggacc  gtccctctct  ccttctactt  caaagacttc
361  gtggcggcca  attcgtcag  ccccttcgtc  ttctggctgc  tctactgctt  ccctgtgtgc
421  ctgcagtttt  tcaccctcac  gctgatgaac  ttgtacttca  cgcaggatgat  tttcaaagcc
481  aagtcaaaat  attctccaga  attactcaaa  taccggttgc  ccctctacct  ggccctccct
541  ttcacagacc  ttgttttct  gttggtgaat  ttaacctgtg  ctgtgctggt  aaagacggga
601  aattggggaga  ggaagggtat  cgtctctgtg  cgagtggcca  ttaatgacac  gctcttcgtg
661  ctgtgtgcgg  tctctctctc  catctgtctc  taaaaaatct  ctaagatgtc  cttagccaac
721  atttacttgg  agtccaaggg  ctccctccgt  tgtcaagtga  ctgccatcgg  tgtcaccgtg
781  atactgcttt  acacctctcg  ggctgtctac  aacctgttca  tctgtcatt  ttctcagaac
841  aagagcgtcc  attcctttga  ttatgactgg  tacaatgtat  cagaccaggc  agatttgaag
901  aatcagctgg  gagatgctgg  atacgtatta  tttggagtgg  tgttatattgt  ttgggaactc
961  ttacctacca  ccttagtcgt  ttatttcttc  cgagttagaa  atcctacaaa  ggaccttacc
1021  aaccctggaa  tgggtcccag  ccatggattc  agtcccagat  cttatttctt  tgacaaccct
1081  cgaagatatg  acagtgatga  tgaccttgcc  tggaacattg  cccctcaggg  acttcaggga
1141  ggttttgctc  cagattacta  tgattgggga  caacaaacta  acagcttctt  ggcacaagca
1201  ggaactttgc  aagactcaac  tttggatcct  gacaaaccaa  gccttgggta  gcatcagtta
1261  acagttttat  ggacgattcc  tcagatgaaa  agcttcagaa  aagcatagtg  acagctgaat
1321  ttttagggca  cttttcctta  agaaatagaa  cttgattttt  atttgttaca  ggtttccaat
1381  ggccccatag  gaataagcaa  taatgtagac  tgataaacc  ttattttagt  actaaagagg
1441  gagccttgct  atttcagtgg  gtataattta  aactttttta  agaaaatctg  tactttttata
1501  aagatgtatt  ttgtataact  taaataataa  tgctaaagta  tactagggtt  tttttttctt
1561  gagaatgtta  ctgcaatcat  gttgtagttt  gcacagactt  ttatgcataa  ttcactttaa
1621  aaatatagaa  tatatggctc  aatagttttt  taaagctttt  ggactaaagt  attccacaaa
1681  tcttacctct  ttaggtcact  gatggtcact  ccgattctga  gtgccacatt  ggtagactcc
1741  taaaatacag  ttgacaactt  agccaattgc  aactccagtg  ttgataatta  aaatgaaatg
1801  gtaaagcagc  agactgtaag  gtctttagag  attttttttt  aagggttcagg  ccgtagggtt
1861  ctcaaggaat  ctcttaagtt  ttgcccacaa  actggtactt  cctttcagta  gggcgctaatt
1921  gtatacacat  taatgataag  ttgataacat  taaaaatgta  gctgacttat  cctattaaac
1981  ctctctgct  atgttcac (SEQ ID NO:13)

```

FIGURE 10A

TM7SF1 (NM_003272)

```

MRPERPRPRGSAPGPMETPPWDPARNDSLPTLTTPAVPPYVKLG
LTVVYTVFYALLFVFIYVQLWLVLRYRHKRLSYQSVFLFLCLFWASLRTVLFSFYFKD
FVAANSLSPFVFWLLYCFPVCLQFFTLTLMNLYFTQVIFKAKSKYSPELLKYRLPLYL
ASLFISLVFLLVNLCAVLVKTGNWERKVIIVSRVAINDTLFVLCVLSICLYKISK
MSLANIYLESKGSSVCQVTAIGVTVILLYTSRACYNLFILSFSQNKSVHSFDYDWINV
SDQADLKNQLGDAGYVLFVGVLFVWELLPTTLVVYFFRVRNPTKDLTNPGMVPSHGFS
PRSYFFDNPRRYDSDDDLAWNIA PQGLQGGFAPDYDWDGQQTNSFLAQAGTLQDSTLD
PDKPSLG (SEQ ID NO:14)

```

FIGURE 10B

16/115

DLDH (dihydrolipamide dehydrogenase, NM_000108)

```

1  gcgcagggag gggagacctt ggcggacggc ggagccccag cggagggtgaa agtattggcg
61  gaaaggaaaa tacagcggaa aaatgcagag ctggagtcgt gtgtactgct ccttggccaa
121 gagaggccat ttcaatcgaa tatctcatgg cctacagga ctttctgcag tgcctctgag
181 aacttacgca gatcagccga ttgatgctga tgtaacagtt ataggttctg gtcctggagg
241 atatgttgct gctattaaag ctgcccagtt aggcttcaag acagtctgca ttgagaaaaa
301 tgaaacactt ggtggaacat gcttgaatgt tggttgtatt ccttctaagg ctttattgaa
361 caactctcat tattaccata tggcccagtg aacagatatt gcatctagag gaattgaaat
421 gtccgaagtt cgcttgaatt tagacaagat gatggagcag aagagtactg cagtaaaagc
481 tttaacaggt ggaattgccc acttattcaa acagaataag gttgttcatg tcaatggata
541 tggaaagata actggcaaaa atcaagtcac tgctacgaaa gctgagggc gactcaggt
601 tattgataca aagaacattc ttatagccac gggttcagaa gttactcctt ttcttggaaat
661 cagcatagat gaagatacaa tagtgtcatc tacagggtgt ttatctttaa aaaaagttcc
721 agaaaagatg gttgttattg gtgcaggagt aatagggtga gaattgggtt cagtttggca
781 aagacttggt gcagatgtga cagcagttga atttttaggt catgtagggtg gagttggaat
841 tgatatggag atatctaaaa actttcaacg catccttcaa aaacaggggt ttaaatttaa
901 attgaataca aaggttactg gtgctaccaa gaagtcagat ggaaaaattg atgtttctat
961 tgaagctgct tctggtggta aagctgaagt tatcacttgt gatgtactct tggtttgcat
1021 tggccgacga ccttttacta agaatttggg actagaagag ctgggaattg aactagatcc
1081 tagaggtaga attccagtca ataccagatt tcaaaactaa attccaaata tctatgccat
1141 tgggtgatgta gttgctggtc caatgctggc tcacaaagca gaggatgaag gcattatctg
1201 tgttgaagga atggctggtg gtgctgtgca cattgactac aattgtgtgc catcagtgat
1261 ttacacacac cctgaagttg cttgggttgg caaatcagaa gagcagttga aagaagaggg
1321 tattgagtac aaagttggga aattcccatt tgctgctaac agcagagcta agacaaatgc
1381 tgacacagat ggcattggtga agatccttgg gcagaaatcg acagacagag tactggggagc
1441 acatattctt ggaccagggtg ctggagaaat ggtaaatgaa gctgctcttg ctttggaaata
1501 tggagcatcc tgtgaagata tagctagagt ctgtcatgca catccgacct tatcagaagc
1561 ttttagagaa gcaaactctg ctgcgtcatt tggcaaatca atcaactttt gaattagaag
1621 attatatatt ttttttctg aaatttctg ggagcttttg tagaagtcac attcctgaac
1681 aggatattct cacagctcca agaatttcta ggactgaatt atgaaacttt tggaaaggtat
1741 ttaataggtt tggacaaaat ggaatactct tatatctata ttttacataa atttagtatt
1801 ttgtttcagt gcaactaatat gtaagacaaa aaggactact tattgtagtc atcctggaat
1861 atctccgtca actcatattt tcatgctgtt catgaaagat tcaatgcccc tgaattttaa
1921 tagctctttt ctctgataca gaaaagttga attttacatg gctggagcta gaatttgata
1981 tgtgaacagt tgtgtttgaa gcacagtgat caagttattt ttaatttggg tttcacattg
2041 gaaacaagtc agtcattcag atatgattca aatgtctata aaccaacttg atgtaagtaa
2101 atggtctctc acttgtttta tttaacctct aaattctttc attttagggg tagcatttgt
2161 gttgaagagg ttttaaagct tccattgttg tctgcaactc tgaagggtaa ttatatagtt
2221 acccaaatta agagagtcta tttacggaac tcaaatacgt gggcattcaa atgtattaca
2281 gtgggggaatg aagatactga aataaacgtc ttaaattatt (SEQ ID NO:15)

```

FIGURE 11A

DLDH (dihydrolipamide dehydrogenase, NM_000108)

```

MQSWSRVYCSLAKRGHFNRISHGLQGLSAVPLRITYADQPIDADV
TVIGSGPGGYVAAIKAAQLGFKTVCIKNETLGGTCLNVGCI PSKALLNNSHYHMAH
GTDFASRGIEMSEVRLNLDKMMQKSTAVKALTGGIAHLFKQNKVVHVNGYGKITGKN
QVTATKADGGTQVIDTKNLIATGSEVTPFPGITIDEDTIVSSTGALS LKKVPEKMOV
IGAGVIGVELGSVWQRLGADVTAVEFLGHVGGVGDMEISKNFQRILQKQGFKFLNT
KVTGATKKS DGKIDVSI EAASGGKAEVITCDVLLVCIGRRPFTKNLGLLEELGIELDPR
GRIPVNTFRFQTKIPNIYAIGDVVAGPMLAHKAEDEGIICVEGMAGGAVHIDYNCVPSV
IYTHPEVAWVGKSEEQLKEEGIEYKVGKFPFAANSRAKTNADTDGMVKILGQKSTDRV
LGAHILGPGAGEMVNEAALALEYGASCEDIARVCHAHPTLSEAFREANLAASFGKSIN
F (SEQ ID NO:16)

```

FIGURE 11B

17/115

MAT2B (methionine adenosyltransferase II, beta, NM_013283)

```

1 gttctggggc taggggaggg gggccgaggg cgtctgagct gaggcccgcg tcgatcctgg
61 gttggaggag gtggcgggcg ctgaggctgc ggctgaaga cggcgggcat ggtggggcgg
121 gagaaagagc tctctataca ctttgttccc gggagctgtc ggctggtgga ggaggaagtt
181 aacatcccta ataggagggg tctggttact ggtgccactg ggcttcttgg cagagctgta
241 cacaaagaat ttcagcagaa taattggcat gcagttggct gtggtttcag aagagcaaga
301 ccaaatttg aacagggtta tctgttggat tctaatagcag ttcatacat cattcatgat
361 tttcagcccc atgttatagt acattgtgca gcagagagaa gaccagatgt tgtagaaaat
421 cagccagatg ctgcctctca acttaatgtg gatgcttctg ggaatttagc aaaggaagca
481 gctgctgttg gagcatttct catctacatt agctcagatt atgtatttga tggaacaaat
541 ccaccttaca gagaggaaga cataccagct cccctaaatt tgtatggcaa aacaaaatta
601 gatggagaaa aggctgtcct ggagaacaat ctaggagctg ctgttttgag gattcctatt
661 ctgtatgggg aagttgaaaa gctcgaagaa agtgctgtga ctgttatgtt tgataaagtg
721 cagttcagca acaagtcagc aaacatggat cactggcagc agaggttccc cacacatgtc
781 aaagatgttg ccactgtgtg ccggcagcta gcagagaaga gaatgctgga tccatcaatt
841 aagggaaact ttcactggtc tggcaatgaa cagatgacta agtatgaaat ggcagtgtgca
901 attgcagatg ccttcaacct ccccagcagt cacttaagac ctattactga cagccctgtc
961 ctaggagcac aacgtccgag aaatgctcag ctgactgct ccaaattgga gacctggggc
1021 attggccaac gaacaccatt tcgaattgga atcaaagaat cactttggcc tttcttcatt
1081 gacaagagat ggagacaaac ggtctttcat tagtttattt gtgttgggtt cttttttttt
1141 tttaaatgaa aagtatagta tgtggcactt tttaaagaac aaaggaaata gttttgtatg
1201 agtactttta ttgtgactct taggatcttt caggtaaagt atgctcttgc actagtgaag
1261 ttgtctaaag aaactaaagg gcagtcatgc cctgtttgca gtaatttttc tttttatcat
1321 tttgtttgtc ctggctaaac ttggagtttg agtatagtaa attatgatcc ttaaattatt
1381 gagagtcagg atgaagcaga tctgctgtag acttttcaga tgaaattgtt cattctcgta
1441 acctccatat tttcaggatt tttgaagctg ttgacctttt catgttgatt attttaaatt
1501 gtgtgaaata gtataaaaaat cattggtgtt cattatttgc tttgcctgag ctcagatcaa
1561 aatgtttgaa gaaaggaact ttatttttgc aagttacgta cagtttttat gcttgagata
1621 tttcaacatg ttatgtatat tggaaacttct acagcttgat gcctcctgct tttatagcag
1681 tttatgggga gcacttgaaa gagcgtgtgt acatgtattt tttttctagg caaacattga
1741 atgcaaacgt gtattttttt aatataaata tataactgtc cttttcatcc catgttgccg
1801 ctaagtgata tttcatatgt gtggttatac tcataataat gggccttgta agtcttttca
1861 ccattcatga ataataataa atatgtactg ctggcatgta atgcttagtt ttcttgtatt
1921 tactttcttt tttaaatgta aggaccaaac ttctaaacta attgttcttt tgttgcttta
1981 atttttaaaa attacattct tctgatgtaa catgtgatac atacaaaaga atatagttta
2041 atatgtattg aaataaaaca caataaaatt aaaaaaaaaa aaaaaaaaaa (SEQ ID
NO: 17)

```

FIGURE 12A

MAT2B (methionine adenosyltransferase II, beta, NM_013283)

```

MVGREKELSIHFVPGSCLVVEEVNIPNRRVLVTGATGLLGRAV
HKEFQQNNWHAVGCGFRRARPKFEQVNLDSNAVHHIIHDFQPHVIVHCAAERRPDVV
ENQPDAAASQLNVDASGNLAKEAAAVGAFLIYISSDYVFDGTNPPYREEDI PAPLNLYG
KTKLDGEKAVLENNLGA AVLRIPILYGEVEKLEESAVTVMFDKVQFSNKSANMDHWQQ
RFPPTHVKDVATVCRQLAEKRMLDPSIKGTFHWSGNEQMTKYEMACAIADAFNLPSHL
RPITDSPVLGAQRPRNAQLDCSKLET LGIGQRTPFIRIGIKESLWPF LIDKRWRQTVFH (SEQ ID
NO: 18)

```

FIGURE 12B

18/115

STC-2 (stanniocalcin-2, NM_003714)

```

1  gaggaggagg gaaaaggcga gcaaaaagga agagtgggag gaggagggga agcggcgaag
61  gaggaagagg aggaggagga agagggggagc acaaaggatc caggctctcc gacgggaggt
121 taataccaag aaccatgtgt gccgagcggc tgggccagtt catgacctg gctttggtgt
181 tggccacctt tgacccggcg cgggggaccg acgccacca cccaccgag ggtccccaag
241 acaggagctc ccagcagaaa ggccgcctgt ccctgcagaa tacagcggag atccagcact
301 gtttggtcaa cgctggcgat gtggggtgtg gcgtgtttga atgtttcgag aacaactctt
361 gtgagattcg gggcttacat gggatttgca tgacttttct gcacaacgct ggaaaatttg
421 atgcccaggg caagtcatte atcaaagacg cttgaaatg taaggcccac gctctgcggc
481 acaggttcgg ctgcataagc cggaagtgcc cggccatcag ggaaatggtg tccagttgc
541 agcgggaatg ctacctcaag cagcacctgt gcgcggctgc ccaggagaac acccgggtga
601 tagtggagat gatccatttc aaggacttgc tgctgcacga accctacgtg gacctcgtga
661 acttgctgct gacctgtggg gaggagggtga aggaggccat caccacagc gtgcaggttc
721 agtgtgagca gaactgggga agcctgtgct ccatcttgag cttctgcacc tcggccatcc
781 agaagcctcc cacggcgccc ccgagcgccc agccccaggt ggacagaacc aagctctcca
841 gggccacca cggggaagca ggacatcacc tcccagagcc cagcagtagg gagactggcc
901 gaggtgcaa gggtagcgca ggtagcaaga gccacccaaa cgcccatgcc cgaggcagag
961 tcgggggcct tggggctcag ggaccttccg gaagcagcga gtgggaagac gaacagtctg
1021 agtattctga tatccggagg tgaaatgaaa ggcttgcca cgaaatcttt cctccacgcc
1081 gtccatttct ttatctatgg acattccaaa acatttacca ttagagaggg gggatgtcac
1141 acgcaggatt ctgtggggac tgtggacttc atcgaggtgt gtgttcgagg aacggacagg
1201 tgagatggag acccctgggg ccgtggggtc tcaggggtgc ctggtgaatt ctgcacttac
1261 acgtactcaa gggagcgcgc ccgcgttatc ctctacctt tgtcttcttt ccatctgtgg
1321 agtcagtggg tctcgccgcg tctgttgtgg gggaggtgaa ccaggagggg gcagggcaag
1381 gcagggcccc cagagctggg ccacacagtg ggtgctgggc ctgccccga agcttctggt
1441 gcagcagcct ctggtgctgt ctccgcggaa gtcagggcgg ctggattcca ggacaggagt
1501 gaatgtaaaa ataaatatcg cttagaatgc aggagaaggg tggagaggag gcaggggccg
1561 agggggtgct tggtgccaaa ctgaaattca gtttcttggt tggggccttg cggttcagag
1621 ctcttggcga gggtagggg aggagtgtca tttctatgtg taatttctga gccattgtac
1681 tgtctgggct gggggggaca ctgtccaagg gagtggcccc tatgagttta tattttaacc
1741 actgcttcaa atctcgattt cacttttttt atttatccag ttatatctac atatctgtca
1801 tctaaataaa tggctttcaa acaaagcaac tgggtcatta aaaccagctc aaaggggggtt
1861 taaaaaaaaa aaaaccagcc catcctttga ggctgatttt tctttttttt aagttctatt
1921 taaaagcta tcaaacagcg acatagccat acatctgact gcctgacatg gactcctgcc
1981 cacttggggg aaaccttata ccagaggaa aatacacacc tggggagtac atttgacaaa
2041 tttcccttag gatttcgtta tctcaccttg accctcagcc aagattggtg aagctgcgtc
2101 ctggcgattc caggagacc agctggaaac ctggcttctc catgtgaggg gatgggaaag
2161 gaaagaagag aatgaagact acttagtaat tccatcagg aaatgctgac cttttacata
2221 aaatcaagga gactgctgaa aatctctaag ggacaggatt ttccagatcc taattggaaa
2281 tttagcaata aggagaggag tccaagggga caaataaagg cagagagaga gagagagaga
2341 gggagaggaa gaaaagagag agagaaaaga gcctcgtgcc (SEQ ID NO:19)

```

FIGURE 13A

STC-2 (stanniocalcin-2, NM_003714)

```

MCAERLGQFMTLALVLATFDPARGTDATNPPEGPQDRSSQQKGR
LSLQNTAEIQHCLVNAGDVGCGVFECFENNCEIRGLHGICMTFLHNAGKFDAQGKSF
IKDALKCKAHALRHRFGCISRKCPAIREMVSQLQRECYLKHDLCAAAQENTRVIVEMI
HFKDLLLHEPYVDLVNLLLTGEEVKEAITHSVQVQCEQNWGSLCSILSFCTSAIQKP
PTAPPERQPQVDRTKLSRAHHGEAGHHLPESSRETGRGAKGERGSKSHPNHARGRV
GGLGAQGPGSGSSEWEDEQSEYSDIRR (SEQ ID NO:20)

```

FIGURE 13B

19/115

PPBI (alkaline phosphatase, intestinal precursor, NM_001631)

```

1 gttcctggtg tccccacttc gcctccctcc tgctgcccc aagacatgca ggggccctgg
61 gtgctgctgc tgctgggcct gaggctacag ctctccctgg gcgtcatccc agctgaggag
121 gagaacccgg ccttctggaa ccgcccaggca gctgaggccc tggatgctgc caagaagctg
181 cagcccatcc agaaggtcgc caagaacctc atcctcttcc tgggcgatgg gttgggggtg
241 cccacggtga cagccaccag gatcctaag gggcagaaga atggcaaact ggggcctgag
301 acgcccctgg ccatggaccg cttcccatac ctggctctgt ccaagacata caatgtggac
361 agacaggtgc cagacagcgc agccacagcc acggcctacc tgtgcggggg caaggccaac
421 ttccagacca tcggcttgag tgcagccgcc cgctttaacc agtgcaacac gacacgcggc
481 aatgaggtca tctccgtgat gaaccgggcc aagcaagcag gaaagtcagt aggagtgggtg
541 accaccacac ggggtgcagca cgcctcgcca gccggcacct acgcacacac agtgaaccgc
601 aactggtact cagatgctga catgcctgcc tcagcccgcc aggaggggtg ccaggacatc
661 gccactcagc tcactctcaa catggacatt gacgtgatcc ttggcggagg ccgcaagtac
721 atgtttccca tggggacccc agaccctgag taccagctg atgccagcca gaatggaatc
781 aggctggacg ggaagaacct ggtgcaggaa tggctggcaa agcaccaggg tgcctggtat
841 gtgtggaacc gcactgagct catgcaggcg tccctggacc agtctgtgac ccatctcatg
901 ggctctttt agcccggaga cagaaatat gagatcctcc gagacccccc actggacccc
961 tccctgatgg agatgacaga ggctgccctg cgcctgctga gcaggaaacc ccgcggcttc
1021 tacctctttg tggagggcgg ccgcatcgac catggtcatc atgaggggtg ggcttaccag
1081 gcagtcactg agggcggtcat gttcgacgac gccattgaga gggcgggcca gctcaccagc
1141 gaggaggaca cgctgaccct cgtcaccgct gaccactccc atgtcttctc ctttgggtggc
1201 tacactctgc gaggagctc catcttcggg ttggccccc gcaaggctca ggacagcaaa
1261 gcctacacgt ccactctgta cggcaatggc ccgggctacg tgttcaactc aggcgtgcga
1321 ccagacgtga atgagagcga gagcgggagc cccgattacc agcagcaggc ggcggtgcc
1381 ctgtcgtccg agaccacagg aggcgaagac gtggcggtgt ttgcgcggcg cccgcaggcg
1441 cacctggtgc atggtgtgca ggagcagagc ttcgtagcgc atgtcatggc cttcgtgcc
1501 tgtctggagc cctacacggc ctgcgacctg gcgctcccc cctgcaccac cgacgcgcg
1561 caccagttg ccgcgtcgct gccactgctg gccgggaccc tgctgctgct gggggcgctc
1621 gctgctccct gagtgcacca ctccggagtt atcctgctcc ccacctccgg gcgtcctgcc
1681 ctgttccccg tcctgagccg ccacttccag cgaacacaca cagggtgtct gccgttggac
1741 cttcacctcc tagagataaa ccagctcag ctggcgagc ggggccttcc tccctccgc
1801 atccccctca gggagcagga gccagggcg cctgggagc tgagcctggg acttccagga
1861 cttccccctca ggttggtctc tgattcttcc tcccaacccc agagactgca gatttgtgcc
1921 atgcggctgc ctgcacccc gacaataaag ggacaaaac caccacccc ccacctgcc
1981 tctatcctaa ggaagaccaa gcaggcctgg acccagagac gtcccccatc gtgggacacg
2041 acacacccag accgcgtgcc ccaccgtctt agcttcaatc ctggcagcac ctggtagacc
2101 caaggacttg ggtggatcag gacacctgaa gaagagaagc ttccggcaac cctgcaaccc
2161 acccaaggag gctactggt cggggattcc cagggggggt ttgacacagt cctctgctgt
2221 ctccccacta ggatcattcc acaccctgc acctgaccaa gggaccaatt aggcagaggc
2281 ttgccccaa gtcacagccac tcagatgctt cctgcccccc agtgcccatc ccaggtcacc
2341 agatccaagg agcgcttgag gagctctggg tacagggcag caaccagag cccatgggcc
2401 ctccggggac atctggatgc tgggcataga tttctcaaca aggaagactc ccctgcctcc
2461 tcaaggtctc cattctccta ggagacaaag caataataaa aggtgttaga caatgt (SEQ
ID NO:21)

```

FIGURE 14A

PPBI (alkaline phosphatase, intestinal precursor, NM_001631)

```

MQGPWVLLLLGLRLQLSLGVIPAEENPAFWNRQAAEALDAAKK
LQPIQKVAKNLILFLGDGLGVPTVTATRIKKGQKNGKLGPEPLAMDRFPYLALSKTY
NVDQRQVPDSATATAYLCGVKANFQITIGLSAAARFNQCNTTRGNEVISVMNRAKQAGK
SVGGVTTTRVQHASPAGTYAHTVNRNWYSDADMPASARQEGCQDIATQLISNMDIDVI
LGGGRKYMFPMTGPDPEYPADASQNGIRLDGKNLVQEWLAKHQGAWYVWNRTELMQAS
LDQSVTHLMGLFEPGDTKYEILRDP TLDPSLMEMTEAALRLLSRNPRGFYLFVEGGRI
DHGHHEGVAYQAVTEAVMFDDAIERAGQLTSEEDTLTLVTADHSHVFSFGGYTLRGSS
IFGLAPSKAQDSKAYTSILYGNGPGYVFN SGVRPDVNESESGSPDYQQAAVPLSSET
HGGEDVAVFARGPQAHLVHGVQE QSFVAHVMAFAACLEPYTACDLALPACTTDAHPV
AASLPLLAGTLLLLGASAAP (SEQ ID NO:22)

```

FIGURE 14B

20/115

SLNAC1 (sodium channel receptor SLNAC1, NM_004769)

```

1  agaattcggc acgacggggt tctggccatg aagcccacct caggcccgaga ggaggcccg
61  cggccagcct cggacatccg cgtgttcgcc agcaactgct cgatgcacgg gctgggccac
121 gtcttcgggc caggcagcct gagcctgcgc cgggggatgt gggcagcggc cgtggtcctg
181 tcagtggcca ccttcctcta ccaggtgggt gagagggtgc gctactacag ggagtccac
241 caccagactg ccctggatga gcgagaaagc caccggctca tcttcccggc tgtcaccctg
301 tgcaacatca acccactgcg ccgctcgcg ctaacgcca acgacctgca ctgggctggg
361 tctgcgctgc tgggcctgga tcccgagag cagccgcct tctgcgcgc cctgggcccg
421 cccctgcac cgcccggtt catgcccagt cccaccttg acatggcgca actctatgcc
481 cgtgctgggc actccctgga tgacatgctg ctggactgtc gcttccgtgg ccaacctgt
541 gggcctgaga acttcaccac gatcttcacc cggatgggaa agtgctacac atttaactct
601 ggcgctgatg gggcagagct gctcaccact actaggggtg gcatgggcaa tgggctggac
661 atcatgctgg acgtgcagca ggaggaatat ctacctgtgt ggagggacaa tgaggagacc
721 ccgtttgagg tggggatccg agtgcagatc cacagccagg aggagccgcc catcatcgat
781 cagctgggct tgggggtgtc cccgggctac cagaccttg tttcttgcca gcagcagcag
841 ctgagcttcc tgccaccgcc ctggggcgat tgcagttcag catctctgaa ccccaactat
901 gagccagagc cctctgatcc cctaggctcc cccagcccca gccccagccc tccctatacc
961 cttatgggggt gtgcgctggc ctgcgaaacc cgctacgtgg ctcggaagtg cggctgccga
1021 atggtgtaca tgccaggcga cgtgccagtg tgcagcccc agcagtacaa gaactgtgcc
1081 cacccgcca tagatgcat gcttcgcaag gactcgtgcg cctgccccaa cccgtgcgc
1141 agcacgcgt acgccaagga gctctccatg gtgcggatcc cgagccgcgc cgccgcgcgc
1201 ttcttgcccc ggaagctcaa ccgcagcgag gcctacatcg cggagaacgt gctggccctg
1261 gacatcttct ttgaggccct caactatgag accgtggagc agaagaaggc ctatgagatg
1321 tcagagctgc ttggtgacat tgggggcccag atggggctgt tcatcggggc cagcctgctc
1381 accatcctcg agatcctaga ctacctctgt gaggtgttcc gagacaaggt cctgggatat
1441 ttctggaacc gacagcactc ccaaaggcac tccagcacca atctgcttca ggaagggctg
1501 ggcagccatc gaacccaagt tccccacctc agcctgggcc ccagacctcc caccctccc
1561 tgtgccgtca ccaagactct ctccgcctcc caccgcacct gctacctgt caccagctc
1621 tagacctgct gtctgtgtcc tcggagcccc gccctgacat cctggacatg cctagcctg
1681 acgtagcttt tccgtcttca ccccaaataa agtcctaata catcaaaaaa aaaaaaaaaa
1741 aaaaaa (SEQ ID NO:23)

```

FIGURE 15A

SLNAC1 (sodium channel receptor SLNAC1, NM_004769)

```

MKPTSGPEEARPPASDIRVFASNCMSMHGLGHVFGPGSLSLRRGM
WAAAVVLSVATFLYQVAERVRYREFHHQTALDERESHRLIFPAVTLCNINPLRRSRL
TPNDLHWAGSALLGLDPAEHAAFLRALGRPPAPPGFMPSPPTFDMAQLYARAGHSLDDM
LLDCRFRGQPCGPENFTTIFTRMGKCYTFNSGADGAELLTTTRGGMGNGLDMLDVQQ
EEYLPVWRDNEETPFVEGIRVQIHSQEEPPIIDQLGLGVSPGYQTFVSCQQQQLSFLP
PPWGDCCSASLNPNYEPEPSDPLGSPSPSPSPPYTLMGCRACETRYVARKCGCRMVY
MPGDVPVCSPPQYKNCAHPAIDAMLRKDCACPNPCAstryAKELSMVRIpsRAAARF
LARKLNRSEAYIAENVLALDIFFEALNYETVEQKKAYEMSELLGDIGQMGLFIGASL
LTILEILDYLCVFRDKVLGYFWNRQHSQRHSSTNLLQEGLGSHRTQVPHLSLGP RP
PPCAVTKTLASHRTCYLVTQL (SEQ ID NO:24)

```

FIGURE 15B

21/115

CAH4 (carbonic anhydrase iv precursor, NM_000717)

```

1  ctcggtgcgc gaccccggtc cagaggactc tttgctgtcc cgcaagatgc ggatgctgct
61  ggcgctcctg gccctctccg cggcgcgggc atcggccagt gcagagtcac actggtgcta
121  cgaggttcaa gccgagtcct ccaactaccc ctgcttggtg ccagtcaagt ggggtggaaa
181  ctgccagaag gaccgccagt ccccatcaa catcgtcacc accaaggcaa aggtggacaa
241  aaaactggga cgcttcttct tctctggcta cgataagaag caaacgtgga ctgtccaaaa
301  taacgggcac tcagtgatga tgttgctgga gaacaaggcc agcatttctg gaggaggact
361  gcctgcccc aaccaggcca aacagttgca cctgcaactg tccgacttgc catataaggg
421  ctcggagcac agcctcgatg gggagcactt tgccatggag atgcacatag tacatgagaa
481  agagaagggg acatcgagga atgtgaaaga ggcccaggac cctgaagacg aaattgcggt
541  gctggccttt ctggtggagg ctggaacca ggtgaacgag ggcttccagc cactggtgga
601  ggcactgtct aatatcccca aacctgagat gagcactacg atggcagaga gcagcctgtt
661  ggacctgctc cccaaggagg agaaactgag gcactacttc cgctacctgg gctcactcac
721  cacaccgacc tgcgatgaga aggtcgtctg gactgtgttc cgggagccca ttcagcttca
781  cagagaacag atcctggcat tctctcagaa gctgtactac gacaaggaac agacagtgag
841  catgaaggac aatgtcaggc ccctgcagca gctggggcag cgcacggtga taaagtccgg
901  ggccccgggt cgcccgctgc cctgggccct gcctgccttg ctgggcccc a tgctggcctg
961  cctgctggcc ggcttctctg gatgatggct cacttctgca cgcagcctct ctggtgcctc
1021  agctctccaa gttccaggct tccggtcctt agccttccca ggtgggactt taggcatgat
1081  taaaatatgg acatatTTTT ggag (SEQ ID NO:25)

```

FIGURE 16A

CAH4 (carbonic anhydrase iv precursor, NM_000717)

```

RMLLALLALSAARPSASAESHWCYEVQAESSNYPCLVPVKWGG
CQKDRQSPINIVTTKAKVDKKLGRFFFSGYDKKQTTWTQNNNGHSVMMLLENKASISG
GLPAPYQAKQLHLHWSLDPYKGSEHSLDGEHFAMEMHIVHEKEKGTSRNVKEAQDPE
EIAVLAFLVEAGTQVNEGFQPLVEALSNIKPPEMSTTMAESSLLDLLPKEEKLRYHF
YLGLSLTPTCDEKVVWTVFREPIQLHREQILAFSQKLYYDKEQTVSMKDNVRPLQQL
QRTVIKSGAPGRPLPWALPALLGPMLACLLAGFLR (SEQ ID NO:26)

```

FIGURE 16B

22/115

PA21 (phospholipase a2 precursor, NM_000928)

```
1  tggatcatctc agttcttttc tcaccttgac tgcaagatga aactccttgt gctagctgtg
61 ctgctcacag tggccgccgc cgacagcggc atcagccctc gggccgtgtg gcagttccgc
121 aaaatgatca agtgcgatgat cccggggagt gacccttctt tggaatacaa caactacggc
181 tgctactgtg gcttggggggg ctcaggcacc cccgtggatg aactggacaa gtgctgccag
241 acacatgaca actgctatga ccaggccaag aagctggaca gctgtaaatt tctgctggac
301 aaccggtaca cccacaccta ttcatactcg tgctctggct cggcaatcac ctgtagcagc
361 aaaaacaaaag agtgtgaggc cttcatttgc aactgcgacc gcaacgctgc catctgcttt
421 tcaaaagctc catataacaa ggcacacaag aacctggaca ccaagaagta ttgtcagagt
481 tgaatatcac ctctcaaaag catcacctct atctgcctca tctcacactg tactctccaa
541 taaagcacct tgttgaaaga cctcaaaaaa aaaaaaaaaa aaaaa (SEQ ID NO:27)
```

FIGURE 17A

PA21 (phospholipase a2 precursor, NM_000928)

```
KLLVLAVLLTVAAADSGISPRAVWQFRKMIKCVIPGSDPFLEY
NYGCYCYGLGGSGTPVDELDKCCQTHDNCYDQAKKLDCKFLLDNPYHTYSSCSGS
ITCSSKNKECEAFICNCDRNAAICFSKAPYNKAHKNLDTKKYCQS (SEQ ID NO:28)
```

FIGURE 17B

23/115

PAR2 (proteinase activated receptor 2 precursor, NM_005242)

```

1  tgaaacctaa cccgccctgg ggaggcgcgc agcagaggct ccgattcggg gcaggtgaga
61 ggctgacttt ctctcggtgc gtccagtggg gctctgagtt tcgaatcggc ggcggcggat
121 tccccgcgcg cccggcgtcg gggcttcagg gaggatgcgg agccccagcg cggcgtggct
181 gctggggggcc gccatcctgc tagcagcctc tctctcctgc agtggcacca tccaaggaac
241 caatagatcc tctaaaggaa gaagccttat tggtaagggt gatggcacat cccacgtcac
301 tggaaaagga gttacagttg aaacagtctt ttctgtggat gagttttctg catctgtcct
361 cactggaaaa ctgaccactg tcttccttcc aattgtctac acaattgtgt ttgtggtggg
421 tttgccaaagt aacggcatgg ccctgtgggt ctttcttttc cgaactaaga agaagcacc
481 tgctgtgatt tacatggcca atctggcctt ggctgacctc ctctctgtca tctgtttccc
541 cttgaagatt gcctatcaca tacatggcaa caactggatt tatggggaag ctctttgtaa
601 tgtgcttatt ggctttttct atggcaacat gtactgttcc attctcttca tgacctgcct
661 cagtgtgcag aggtattggg tcatcgtgaa ccccatgggg cactccagga agaaggcaaa
721 cattgccatt ggcattctcc tggcaatatg gctgctgatt ctgctgggtc ccatcccttt
781 gtatgtcgtg aagcagacca tcttcattcc tgccctgaac atcacgacct gtcagtgtgt
841 tttgcctgag cagctcttgg tgggagacat gttcaattac ttcctctctc tggccattgg
901 ggtctttctg tccccagcct tcctcacagc ctctgcctat gtgctgatga tcagaatgct
961 gcgatcttct gccatggatg aaaactcaga gaagaaaagg aagagggcca tcaaaactcat
1021 tgtcactgtc ctggccatgt acctgatctg cttcactcct agtaaccttc agttgtggtg
1081 gcattatttt ctgattaaga gccagggcca gagccatgtc tatgccctgt acattgtagc
1141 cctctgcctc tctacctta acagctgcat cgacctctt gtctattact ttgtttcaca
1201 tgatttcagg gatcatgcaa agaacgctct cttttgccga agtgtccgca ctgtaaagca
1261 gatgcaagta tccctcacct caaagaaaca ctccaggaaa tccagctctt actcttcaag
1321 ttcaaccact gttaagacct cctattgagt tttccaggtc ctcagatggg aattgcacag
1381 taggatgtgg aacctgttta atgttatgag gacgtgtctg ttatttctta atcaaaaagg
1441 tctcaccaca taccatgtgg atgcagcacc tctcaggatt gctaggagct cccctgtttg
1501 catgagaaaa gtagtcccc aaattaacat cagtgtctgt ttcagaatct ctctactcag
1561 atgacccag aaactgaacc aacagaagca gacttttcag aagatgggtg agacagaaac
1621 ccagtaactt gcaaaaagta gacttggtgt gaagactcac ttctcagctg aaattatata
1681 tatacacata tatatatatt acatctggga tcatgataga cttgttaggg cttcaaggcc
1741 ctgagagatg atcagtccaa ctgaacgacc ttacaaatga ggaaaccaag ataaatgagc
1801 tgccagaatc aggtttccaa tcaacagcag tgagttggga ttggacagta gaatttcaat
1861 gtccagttag tgaggttctt gtaccacttc atcaaaatca tggatcttgg ctgggtgcgg
1921 tgctcatgct ctgtaatcct agcacttttg gaggtgagg caggcaatca cttgaggtca
1981 ggagttcgag accagcctgg ccatcatggc gaaacctcat ctctactaaa aatacaaaaag
2041 ttaaccagg gtgtggtgca cgtttgtaat ccagttact caggaggctg aggcacaaga
2101 attgagtatc actttaactc agggaggcaga ggttgcaagt agccgagatt gcaccactgc
2161 actccagctt ggggtataaa ataaaaataa atagtcgtga atcttgttca aaatgcagat
2221 tcctcagatt caataatgag agctcagact gggaacaggg cccaggaatc tgtgtggtac
2281 aaacctgcat ggtgtttatg cacacagaga tttgagaacc attgttctga atgctgcttc
2341 catttgacaa agtgccgtga taatttttga aaagagaagc aaacaatggg gtctctttta
2401 tgttcagctt ataatgaaat ctgtttgttg acttattagg actttgaatt atttctttat
2461 taacctctg agttttttgta tgtattatta ttaaagaaaa atgcaatcag gattttaaac
2521 atgtaaatac aaattttgta taacttttga tgacttcagt gaaattttca ggtagttctga
2581 gtaatatagatt gttttgccac ttagaatagc atttgccact tagtatttta aaaaataatt
2641 gttggagtat ttattgtcag ttttgttcac ttgttatcta atacaaaatt ataaagcctt
2701 cagagggttt ggaccacatc tctttggaaa atagtttgca acatatttta gagatacttg
2761 atgcaaaaat gactttatac aacgattgta tttgtgactt ttaaaaaata ttattttatt
2821 gtgtaattga tttataaata acaaaatttt ttttacaact taaaaaaaaa aaaaaa (SEQ
ID NO:29)

```

FIGURE 18A

24/115

PAR2 (proteinase activated receptor 2 precursor, NM_005242)

RSPSAAWLLGAAILLAASLSCSGTIQGTNRSSKGRSLIGKVDG
SHVTGKGVTVETVFSVDEFSASVLTGKLTTVFLPIVYTIVFVGLPSNGMALWVFLF
TKKKHPAVIYMANLALADLLSVIWFPLKIAYHIHGNNWIYGEALCNVLIGFFYGNMY
SILFMTCLSVQRYWVIVNPMGHSRKKANIAIGISLAIWLLILLVTIPLYVVKQTIFI
ALNITTCHDVLPEQLLVGDMFNYFLSLAIGVFLFPAFLTASAYVLMIRMLRSSAMDE
SEKKRKRAIKLIVTVLAMYLICFTPSNLLLTVVHYFLIKSQGQSHVYALYIVALCLST
NSCIDPFVYYFVSHDFRDHAKNALLCRSVRTVKQMQLTSKKHSRKSSSYSSSSTT
KTSY (SEQ ID NO:30)

FIGURE 18B

25/115

IDE (insulin-degrading enzyme, NM_004969)

```

1  ccggctcgaa ggcgaacgag gaagcgtttg cggtgatccc ggcgactgcg ctggctaatag
61  cggtagcggc tagcgtggct tctgcacccc gcactgccc gacacttcg ctcagtcctc
121  ggcccccgcg tgcgcctcc ggagcgctg tgtggtttcc aaaaaagac ttacagcaaa
181  atgaataatc cagccatcaa gagaatagga aatcacatta ccaagtctcc tgaagacaag
241  cgagaatatc gagggctaga gctggccaat ggtatcaaag tacttcttat gagtgatccc
301  accacggata agtcatcagc agcacttgat gtgcacatag gttcattgtc ggatcctcca
361  aatattgctg gcttaagtca tttttgtgaa catatgcttt ttttgggaac aaagaaatac
421  cctaaagaaa atgaatacag ccagtttctc agtgagcatg caggaagttc aaatgccttt
481  actagtggag agcatacca ttactatttt gatgtttctc atgaacacct agaaggtgcc
541  ctgacacagg ttgcacagtt ttttctgtgc cccttggtcg atgaaagttg caaagacaga
601  gaggtgaatg cagttgattc agaacatgag aagaatgtga tgaatgatgc ctggagactc
661  tttcaattgg aaaaagctac agggaaatcct aaacacccct tcagtaaatt tgggacaggt
721  aacaaatata ctctggagac tagaccaaac caagaaggca ttgatgtaag acaagagcta
781  ctgaaattcc attctgctta ctattcatcc aacttaatgg ctggttggtg tttaggtcga
841  gaatctttag atgacttgac taatctggtg gtaaagttat tttctgaagt agagaacaaa
901  aatgttccat tgccagaatt tcctgaacac cttttccaag aagaacatct taaacaactt
961  tacaaaatag taccatttaa agatattagg aatctctatg tgacatttcc catacctgac
1021  cttcagaaat actacaaatc aaatcctggt cattatcttg gtcattctat tgggcatgaa
1081  ggtcctggaa gtctgttata agaacttaag tcaaagggct ggggttaatac tcttgttggg
1141  gggcagaagg aaggagcccg aggtttttatg ttttttatca ttaatgtgga cttgaccgag
1201  gaaggattat tacatgttga agatataatt ttgcacatgt ttcaatacat tcagaagtta
1261  cgtgcagaag gacctcaaga atgggttttc caagagtgca aggacttgaa tgctgttgct
1321  tttaggttta aagacaaaga gaggccacgg ggctatacat ctaagattgc aggaatattg
1381  cattattatc ccctagaaga ggtgctcaca gcggaatatt tactggaaga atttagacct
1441  gacttaatag agatggttct cgataaaactc agaccagaaa atgtccgggt tgccatagtt
1501  tctaaatctt ttgaaggaaa aactgatcgc acagaagagt ggtatggaac ccagtacaaa
1561  caagaagcta taccggatga agtcatcaag aaatggcaaa atgctgacct gaatgggaaa
1621  tttaaacttc ctacaaagaa tgaatttatt cctacgaatt ttgagatttt accgttagaa
1681  aaagaggcga caccataccc tgctcttatt aaggatacag tcatgagcaa actttggttc
1741  aaacaagatg ataagaaaaa aaagccgaag gcttgtctca actttgaatt tttcagccca
1801  tttgcttatg tggacccctt gcactgtaac atggcctatt tgtacctga gctcctcaa
1861  gactcactca acgagtatgc atatgcagca gagctagcag gcttgagcta tgatctccaa
1921  aataccatct atgggatgta tctttcagtg aaagggttaca atgacaagca gccaatttta
1981  ctaaagaaga ttattgagaa aatggctacc tttgagattg atgaaaaaag atttgaaatt
2041  atcaaagaag catatatgcg atctcttaac aatttccggg ctgaacagcc tcaccagcat
2101  gccatgtact acctccgctt gctgatgact gaagtggcct ggactaaaga tgagttaaaa
2161  gaagctctgg atgatgtaac ccttcctcgc cttaaggcct tcataacctc gctcctgtca
2221  cggctgcaca ttgaagccct tctccatgga aacataacaa agcaggctgc attaggaatt
2281  atgcagatgg ttgaagacac cctcattgaa catgctcata ccaaacctct cctccaagt
2341  cagctggttc ggtatagaga agttcagctc cctgacagag gatggtttgt ttatcagcag
2401  agaaatgaag ttcacaataa ctgtggcatc gagatatact accaaacaga catgcaaagc
2461  acctcagaga atatgtttct ggagctcttc tgtcagatta tctcggaacc ttgcttcaac
2521  acctgcgca ccaaggagca gttgggctat atcgtcttca gcgggccacg tcgagctaatt
2581  ggcatacaga gcttgagatt catcatccag tcagaaaagc cacctcata cctagaaagc
2641  agagtggaag ctttcttaat taccatggaa aagtccatag aggacatgac agaagaggcc
2701  ttccaaaaac acattcaggc attagcaatt cgtcgactag acaaaccaaa gaagctatct
2761  gctgagtgtg ctaaatactg gggagaaatc atctcccagc aatataattt tgacagagat
2821  aacactgagg ttgcatattt aaagacactt accaaggaag atatcatcaa attctacaag
2881  gaaatgttgg cagtagatgc tccaaggaga cataagggat ccgtccatgt tcttgccagg
2941  gaaatggatt cttgtcctgt tggtggagag ttcccatgtc aaaatgacat aaatttgtca
3001  caagcaccag ccttgccaca acctgaagtg attcagaaca tgaccgaatt caagcgtggt
3061  ctgccactgt ttccccttgt gaaaccacat attaacttca tggctgcaaa actctgaaga
3121  ttcccctgc atgggaaagt gcaagtggat gcattcctga gtcttcaga gcctaagaaa
3181  atcatcttgg ccactttaat agtttctgat tcactattag agaaacaaac aaaaaattgt
3241  caaatgtcat tatgtagaaa tattataaat ccaaagtaa (SEQ ID NO:31)

```

FIGURE 19A

26/115

IDE (insulin-degrading enzyme, NM_004969)

MRYRLAWLLHPALPSTFRSVLGARLPPPERLCGFQKKTYSKMNN
PAIKRIGNHITKSPEDKREYRGLELANGIKVLLMSDPTTDKSSAALDVHIGSLSDPPN
IAGLSHFCEHMLFLGTTKYPKENEYSQFLSEHAGSSNAFTSGEHTNYYFDVSHEHLEG
ALDRFAQFFLCPLFDESKDREVNVDSEHEKNVMNDARLFLQLEKATGNPKHPFSKF
GTGNKYTLETRPNQEGIDVRQELLKFHSAYYSSNLMAVCVLGRESLDDLTLNVVKLFS
EVENKNVPLPEFPPEHPFQEEHLKQLYKIVPIKDIRNLYVTFFIPDLQKYYKSNPGHYL
GHLIGHEGPGSLLSELKSKGWVNTLVGGQKEGARGFMFFIINVDLTEEGLLHVEDIIL
HMFQYIQKLRAEGPQEWVFQECKDLNAVAFRFKDKERPRGYTSKIAGILHYYPLEEV
TAEYLLEEFRPDLIEMVLDKLRPENVRVAIVSKSFEGKTDRTTEWYGTQYKQEAIPDE
VIKKWQNADLNGKFKLPTKNEFIPTNFEILPLEKEATPYPALIKDTVM SKLWFKQDDK
KKKPKACLNFEFFSPFAYVDPLHCNMAYLYLELLKDSLNEYAYAAELAGLSYDLQNTI
YGMYSVKGYNDKQPILLKKIIEKMATFEIDEKRFEIIEKAYMRSLNNFRAEQPHQHA
MYYLRLLMTEVAWTKDELKEALDDVTLPRLKAFIPQLLSRLHIEALLHG NITKQAALG
IMQMVEDTLIEHAHTKPLLPSQLVRYREVQLPDRGWVFVYQQRNEVHNNGIEIYYQTD
MQSTSENMFLELFCQIISEPCFNTLRTKEQLGYIVFSGPRRANGIQSLRFIIQSEKPP
HYLESRVEAFLITMEKSIEDMTTEAFQKHIQALAIRRLDKPKKLSAECACYWGEIISQ
QYNFDRDNTEVAYLKTLTKEDI IKFYKEMLAVDAPRRHKVSVHVLAREMDSCPVVGEF
PCQNDINLSQAPALPQPEVIQNMTEFKRGLPLFPLVKPHINFMAAKL (SEQ ID NO:32)

FIGURE 19B

27/115

MYO1A (myosin-1A, NM_005379)

```

1  cagggagcct gggctggaag aggcagcaaa agggaaaatc agaagagtgg acactggcaa
61  gaggagggca gcctttttcc cagcttcctt gcaccatgga cagctcccat taagccacct
121 ctccatcctg gggccaggac tcttatgccc cattcctgtc aaattgagat ttcattccacc
181 attctccaag gacagtgaag ttatacccta gttccagtgt tgggatcagt ggccccctctg
241 gacatgcctc tcctggaagg ttctgtgggg gtggaggatc ttgtcctcct ggaacccttg
301 gtggaggagt cactgctcaa gaatcttcag cttcgctatg aaaacaagga gatttataacc
361 tacattggga atgtggtgat ctcagtgaat ccctatcaac agcttcccat ctatggggcca
421 gagttcattg ccaaatatca agactatact ttctatgagc tgaagcccca tatctacgca
481 ttggcaaatg tggcgtacca gtcactgagg gacagggacc gagaccagtg tatcctcatc
541 acaggcgaga gtggatcagg gaagactgag gccagcaagc tggatgatgc ttatgtggct
601 gccgtctgtg ggaaaggaga gcaggtgaac tctgtgaagg agcagctgct acagtctaac
661 ccagtgtctg aggtttttgg caatgccaa accattcgca acaacaattc ctcccgattt
721 ggaaaataca tggatattga atttgacttc aagggatccc ccctcggtgg tgtcatcaca
781 aactatctgc ttgagaaatc ccgattagtg aagcagctca aaggagaaag gaacttccac
841 atcttctatc agctgctggc tggagcagat gaacagctgc tgaaggccct gaagcttgag
901 cgggatacaa ctggctatgc ctatctgaat catgaagtat ccagagtggg tggcatggac
961 gacgcctcca gcttcagggc tgtacagagt gcaatggcag tgattgggtt ctcgaggag
1021 gagattctgc aagtgctaga ggtgacatcc atggtgctaa agctgggaa cgtgttgggtg
1081 gctgatgagt tccaggccag tggatacca tcaagtggca tccgtgatgg gagagtgtgtt
1141 cgggagattg gggagatggt gggcttgaat tcagaagaag tagagagagc tttgtgctcg
1201 aggaccatgg aaacagccaa ggaaaagggtg gtcactgcac tgaatgttat gcaggctcag
1261 tatgctcggg acgccctggc taagaacatc tacagccgcc tctttgactg gatagtgaat
1321 cgaatcaatg agagcatcaa ggtgggcac gccggaaaaga agaaggtaat gggagtcctt
1381 gatattctacg gttttgagat attagaggat aatagctttg agcaatttgt gatcaactac
1441 tgcaatgaga agctgcagca ggtgttcata gagatgacct tgaagaaga gcaagaggaa
1501 tataagagag aaggcatacc gtggacaaa gtggactact ttgataatgg catcatttgt
1561 aagctcattg agcataatca gcgaggtatc ttggccatgt tggatgagga gtgctgctcg
1621 cctgggggtg tcagtgactc cactttccta gcaaagctga accagctctt ctccaagcat
1681 ggccactacg agagcaaatg caccagaaat gccagcgtc agtatgacca caccatgggc
1741 ctgagctgct tccgcatctg ccactatgcg ggcaagggtg catacaacgt gaccagctt
1801 attgacaaga ataatgacct actcttccga gacctgttgc aggccatgtg gaaggcccag
1861 caccctctcc ttcggctcctt gtttcctgag ggcaatccta agcaggcatc tctcaaacgc
1921 ccccgactg ctggggccca gttcaagagt tctgtggcca tcctcatgaa gaatctgtat
1981 tccaagagcc ccaactacat caggtgcata aagcccaatg agcatcagca gcgaggtcag
2041 ttctcttcag acctggtggc aaccagggtc cggtaacctg gactgctgga gaactacgg
2101 gtgcgacggg caggctatgc ccaccgccag gtttatgggc ccttcctgga aaggtaaccga
2161 ttgctgagcc ggagcacctg gcctcactgg aatgggggag accgggaagg tgttgagaag
2221 gtcttggggg agctgagcat gtcctcgggg gagctggcct ttggcaagac aaagatcttc
2281 attagaagcc ccaagactct tttctacctc gaagaacaga ggcgcctgag actccagcag
2341 ctggccacac tcatacagaa gatttaccga ggctggcgct gccgcacca ctaccaactg
2401 atgcgaaaga gtcagatcct catctcctct tggtttcggg gaaacatgca aaagaaatgc
2461 tatgggaaga taaaggcatc cgtgttattg atccaggctt ttgtgagagg gtggaaggcc
2521 cgaaagaatt atcgcaaata tttccggtca gaggtgccc tcacctggc agatttcatc
2581 tacaagagca tggtagagaa attcctactg gggctgaaga acaatttgcc atccacaaac
2641 gtcttagaca agacatggcc agccgcccc tacaagtgcc tcagcacagc aaatcaggag
2701 ctgcagcagc tcttctacca gtggaagtgc aagaggttcc gggatcagct gtccccgaag
2761 caggtagaga tcctgaggga aaagctctgt gccagtgaac tgttcaaggg caagaaggct
2821 tcatatcccc agagtgtccc cattccattc tgtggtgact acattgggct gcaagggaac
2881 cccaagctgc agaagctgaa aggcggggag gaggggcctg ttctgatggc agaggccgtg
2941 aagaaggtca atcgaggcaa tggcaagact tcttctcgga ttctcctcct gaccaagggc
3001 catgtgattc tcacagacac caagaagtcc caggccaaaa ttgtcattgg gctagacaat
3061 gtggctgggg tgtcagtcac cagcctcaag gatgggctct ttagcttgca tctgagttag
3121 atgtcatcgg tgggtccaa gggggacttc ctgctgggtc gcgagcatgt gattgaactg
3181 ctgacaaaaa tgtaccgggc tgtgctggat gccacgcaga ggcagcttac agtcaccgtg

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FIGURE 20A

28/115

```
3241 actgagaagt tctcagtgag gttcaaggag aacagtgtgg ctgtcaaggt cgtccagggc
3301 cctgcagggtg gtgacaacag caagctacgc tacaaaaaaaa aggggagtc tggcttggag
3361 gtgactgtgc agtgaggagg gggcaccatg cagagatggc agttgcttcc tcctgaacca
3421 gcactaatcc ccctctgccc tcctgtgtgg gaggatctct aaccctctg atcgtggcgc
3481 atggcttggg gattaaacta cccttgaaga ggacccttgt cccaaaccct tcttgttctc
3541 tcctccaaaa gtagcttcct ccaaccgca gcctctctgc acactaataa aacatgtggc
3601 ttggaaaggt tcaaaaaaaaa aaaa (SEQ ID NO:33)
```

FIGURE 20B

MYO1A (myosin-1A, NM_005379)

PLLEGSGVEDLVLEPLVEESLLKLNQLRYENKEIYTYIGNV
ISVNPYQQLPIYGPEFIAKYQDYTFYELKPHIYALANVAYQSLRDRDRDQCILITGE
GSGKTEASKLVMSYVAAVCGKGEQVNSVKEQLLQSNPVLEAFGNAKTIRNNNSSRFG
YMDIEFDFKGSPLGGVITNYLLEKSRLVKQLKGERNFHIFYQLLAGADEQLLKALKL
RDTTGYAYLNHEVSRVDGMDDASSFRAVQSAMAVIGFSEEEIRQVLEVTSMVLKLG
LVADEFQASGIPASGIRDGRGVREIGEMVGLNSEEVERALCSRTMETAKEKVVTALN
MQAQYARDALAKNIYSRLFDWIVNRINESIKVGIGEKKKVMGVLDIYGFEILEDNSF
QFVINYCNEKLQQVFIEMTLKEEQEYKREGIPWTKVDYFDNGIICKLIEHNQRGIL
MLDEECLRPGVVS DSTFLAKLNQLFSKHGHYESKVTQNAQRQYDHTMGLSCFRICHY
GKVTYNVTSFIDKNNDLLFRDLLQAMWKAQHPLRLSLFPEGNPKQASLRPPTAGAQ
KSSVAILMKNLYSKSPNYIRCIKPNEHQQRGQFSSDLVATQARYLGLENVRVRRAG
AHRQGYGPFLERYRLLSRSTWPHWNGGDREGVEKVLGELSMSSGELAFGKTKIFIRS
KTLFYLEEQRRLRLQQLATLIQKIYRGWRCRTHYQLMRKSQILISSWFRGNMQKKCY
KIKASVLLIQAFVRGWKARKNYRKYFRSEAALTLADFIYKSMVQKFLGLKNNLPST
VLDKTWPAAPYKCLSTANQELQQLFYQWKCKRFRDQLSPKQVEILREKLCASELFKG
KASYPQSVPIPFCDYIGLQGNPKLQKLKGGEEGPVLMAEAVKKVNRGNGKTSSRI
LTKGHVILTDTKKSQAKIVIGLDNVAGVSVTSLKDGLFSLHLSEMSSVGSKGDFLLV
EHVIELLTKMYRAVLDTQRQLTVTVTEKFSVRFKENSVAVKVVGPGAGDNSKLRY
KKGSHCLEVTVQ (SEQ ID NO:34)

FIGURE 20C

30/115

CYP2J2 (cytochrome P450 monooxygenase, NM_000775)

```

1 gagccatgct cgcggcgatg ggctctctgg cggctgcctt ctgggcagtg gtccatcctc
61 ggactctcct actgggcact gtcgcctttc tgctcgctgc tgactttctc aaaagacggc
121 gcccaaagaa ctacccgccg gggccctggc gcctgccctt ccttggcaac ttcttccttg
181 tggacttcga gcagtcgcac ctggaggttc agctgtttgt gaagaaatat gggaaccttt
241 ttagcttgga gcttggtgac atatctgcag ttcttattac tggcttgccc ttaatcaaag
301 aagcccttat ccacatggac caaaactttg ggaaccgccc cgtgacctct atgcgagaac
361 atatctttta gaaaaatgga ttgattatgt caagtggcca ggcatggaag gagcaaagaa
421 ggttcactct gacagcacta aggaactttg gtttaggaaa gaagagctta gaggaacgca
481 ttcaggagga ggcccaacac ctactgaag caataaaaga ggagaacgga cagccttttg
541 accctcattt caagatcaac aatgcagttt ccaatatcat ttgctccatc accttcggag
601 aacgctttga gtaccaggat agttggtttc agcagctgct gaagttacta gatgaagtca
661 catacttgga ggcttcaaag acatgccagc tctacaatgt ctttccatgg ataatgaaat
721 tcctgcctgg accccaccaa actctcttca gcaactggaa aaaactgaaa ttgtttgttt
781 ctcatatgat tgacaaacac agaaaggatt ggaatcctgc agaaacaaga gactttattg
841 atgcttacct taaagaaatg tcaaagcaca caggcaatcc tacttcaagt ttccatgaag
901 aaaacctcat ctgcagcacc ctggacctct tctttgccgg aaccgagaca acttccacaa
961 ctctgcgatg ggctctgctt tatatggccc tctaccaga aatccaagaa aaagtacaag
1021 ctgagattga cagagtgatt ggccaggggc agcagccgag cacagccgcc cgggagtcca
1081 tgccctacac caatgctgtc atccatgagg tgcagagaat gggcaacatc atccccctga
1141 acgttccag ggaagtgaca gttgatacca ctttggctgg gtaccacctg cccaagggtg
1201 ccatgatcct gaccaatttg acggcgctgc acagggaccc cacagagtgg gccacccttg
1261 acacattcaa tccggaccat tttctggaga atggacagtt taagaaaagg gaagccttta
1321 tgcttttctc aataggaaaag cgggcatgcc tcggagaaca gttggccagg actgagctgt
1381 ttattttctt cacttccctt atgcaaaaat ttaccttcag gccccaaac aatgagaagc
1441 tgagcctgaa gtttagaatg ggtatcacca tttccccagt cagtcaccgc ctctgcgctg
1501 ttcttcaggt gtaatatgt taagaaagaa aggggcaagg aaagtaagaa gacatggcac
1561 gtgttctgaa accactggtg tctgctcaga tgtgttggga caaaatgaaa gtgactttca
1621 agaaagatca gaggaatttg actcagagaa aactagatcc aaatcccagc tctactgtct
1681 cgtccgaatt agccttgagg aaatcattta tatgctaaat aatttacctt tttatctagg
1741 agatgaaaag aggataatgt ttccttccat aaagaaagtt cttgtaagaa tcaaaagaaa
1801 tggtagctt taagtggttt gtaaaccata aaacacatca taaaagttct atctataaaa
1861 aaaaaaaaaa aaaaaa (SEQ ID NO:35)

```

FIGURE 21A

CYP2J2 (cytochrome P450 monooxygenase, NM_000775)

```

LAAMGSLAAALWAVVHPRITLLGLTVAFLLAADFLKRRRPKNYP
PGPWRLPFLGNFFLVDFEQSHLEVQLFVKKYGNLFSLELGDISAVLITGLPLIKEALI
HMDQNFNGNRPVTPMREHIFKKNGLIMSSGQAWKEQRRFTLTALRNFGLGKKSLEERIQ
EEAQHLTEAIKEENGQPFDPHFKINNAVSNIICSITFGERFEYQDSWFQQLKLLDEV
TYLEASKTCQLYNVFPWIMKFLPGPHQTLFSNWKKLKLFSVSHMIDKHKRDWNPAETRD
FIDAYLKEMSKHTGNPTSSFHEENLICSTLDLFFAGTETTSTTLRWALLYMALYPEIQ
EKVQAEIDRVIGQGQQPSTAARESMPTNAVIHEVQRMGNIIPLNVPREVTVDTTLAG
YHLPKGMTILNTALHRDPTEWATPDTFNPDPHLENGQFKKREAFMPFSIGKRACLG
EQLARTELFIFFTSLMQKFTFRPPNNEKLSLKFRMGITISPVSHRLCAVPQV (SEQ ID

```

NO:36)

FIGURE 21B

31/115

PHYH (phytanoyl-CoA-hydroxylase (Refsum disease), NM_006214)

```

1  gcccgcctgcg gtaaattgggg cagaggccgg gaggggtggg gggtcccccgc gccgcagcca
61  tggagcagct tcgcgcgcgc gcccgctctgc agattgttct gggccacctc ggccgccccct
121 cggccggggc tgcgtagct catcccactt cagggaactat ttctctctgcc agtttccatc
181 ctcaacaatt ccagtatact ctggataata atgttctaac cctggaacag agaaaatttt
241 atgaagaaaa tgggttttcta gtaatcaaaa atcttgtacc tgatgccgat attcaacgct
301 ttcggaatga gtttgaaaaa atctgcagaa aggaggtgaa accattagga ttaacagtaa
361 tgagagatgt gaccatttcg aaatccgaat atgctccaag tgagaagatg atcacgaagg
421 tccaggatgt ccaggaagat aaggagctct tcagatactg cactctcccc gagatttctga
481 aatatgtgga gtgcttcact ggacctaata ttatggccat gcacacaatg ttgataaaca
541 aacctccaga ttctggcaag aagacgtccc gtcaccacct gcaccaggac ctgcactatt
601 tcccccttcag gcccagcgat ctcatcgttt gcgcctggac ggcgatggag cacatcagcc
661 ggaacaacgg ctgtctgggt gtgctcccag gcacacacaa gggctccctg aagccccacg
721 attaccccaa gtgggagggg ggagttaaca aaatgttcca cgggatccag gactacgagg
781 aaaacaaggc ccgggtgcac ctggtgatgg agaaggcgca cactgttttc ttccatcctt
841 tgctcatcca cggatctggt cagaataaaa cccagggatt ccggaaggca atttcctgcc
901 atttcgccag tgccgattgc cactacattg acgtgaaggg caccagtcaa gaaaacatcg
961 agaaggaagt tgtaggaata gcacataaat tctttggagc tgaaaatagc gtgaacttga
1021 aggatatttg gatgtttcga gctcgacttg tgaaaggaga aagaaccaat ctttgaaata
1081 gccatctgct ataactcttt caacagaaaa caaaaacca acgaaatgtc taaggaaaat
1141 gttttcttaa tgagatgatg taaccttttc tatcacttgt taaaagcaga aaacatgtat
1201 caggacttta attgcataga gttagttttg cagcacaatg gtgttgcttt aatggaaaaa
1261 aaaaacagta aaagtgaaat attactgttt taaggaaaac taatttaggg tggcagccaa
1321 taaaggtggt tgggtgtctaa tttaagtgtt aaatcaattt ctttcattca gttagctctt
1381 tacccaagaa gaagtgaatg atttggagct tagggtatgt tttgtatccc ctttctgata
1441 aaccatttcc ctaccaattt tatgtcataa gagatttttt tccccaaat ctagaacaat
1501 gtataatata ttcacatcta gtcaagggca taggaacggt gtcatggagt ccaaataaag
1561 tggatattec tgctcgg (SEQ ID NO:37)

```

FIGURE 22A

PHYH (phytanoyl-CoA-hydroxylase (Refsum disease), NM_006214)

```

MEQLRAAARLQIVLGHLLGRPSAGAVVAHPTSGTSSASFHPQQF
QYTLDDNNVLTLEQRKFYEENGFLVIKNLVPDADIQRFRNEFEKICRKEVKPLGLTVMR
DVTISKSEYAPSEKMITKVQDFQEDKELFRYCTLPEILKYVECF TGNIMAMHTMLIN
KPPDSGKKTSRHPLHQDLHYFPFRPSDLIVCAWTAMEHISRNNGLVVLPGTHKGS LK
PHDYPKWEAGVNMKMFHGIQDYEEKARVHLMVEKGDVFFHPLLIHSGQNK TQGFRK
AISCHFASADCHYIDVKGTSQENIEKEVVGIAHKFFGAENSVNLKDIWMFRARLVKGE
RTNL (SEQ ID NO:38)

```

FIGURE 22B

32/115

CYB5 (cytochrome b5, 3' end, NM_001914)

```

1 atggcagagc agtcggacga ggccgtgaag tactacaccc tagaggagat tcagaagcac
61 aaccacagca agagcacctg gctgacctg caccacaagg tgtacgattt gaccaaattt
121 ctggaagagc atcctggtgg ggaagaagtt ttaagggaac aagctggagg tgacgctact
181 gagaactttg aggatgtcgg gcactctaca gatgccaggg aaatgtccaa aacattcatc
241 attggggagc tccatccaga tgacagacca aagttaaaca agcctccaga accttaaagg
301 cgggtgtttca aggaaactct tatcactact attgattcta gttccagttg gtggaccaac
361 tgggtgatcc ctgccatctc tgcagtggcc gtcgccttga tgtatcgcc atacatggca
421 gaggactgaa cacctcctca gaagtcagcg caggaagagc ctgctttgga cacgggagaa
481 aagaagccat tgctaactac ttcaactgac agaaaccttc acttgaaaac aatgatttta
541 atatatctct ttctttttct tccgacatta gaaacaaaac aaaaagaact gtcctttctg
601 cgctcaaatt tttcgagtgt gcctttttat tcatctactt tattttgatg tttccttaat
661 gtgtaattta cttattataa gcatgatctt ttaaaaatat atttggcttt taaagt (SEQ
ID NO:39)
```

FIGURE 23A

CYB5 (cytochrome b5, 3' end, NM_001914)

```

MAEQSDEAVKYITLEEIQKHNHSTWILHHKVYDLTKFLEE
PGGEEVLREQAGGDATENFEDVGHSTDAREMSKTFIIGELHPDDRPKLNKPPEP (SEQ ID
NO:40)
```

FIGURE 23B

33/115

COXVIb (coxVIb gene, last exon and flanking sequence, NM_001863)

```

1 cctcctggga gggagctgaa gccgctcgca agactcccgt agtccccacc tctctcagct
61 tccggctggt agtagttccg cttcctgtcc gactgtggtg tctttgctga gggtcacatt
121 gagctgcagg ttgaatccgg ggtgccttta ggattcagca ccatggcgga agacatggag
181 accaaaatca agaactacaa gaccgcccct tttgacagcc gcttcccca ccagaaccag
241 actagaaact gctggcagaa ctacctggac ttccaccgct gtcagaaggc aatgaccgct
301 aaaggaggcg atatctctgt gtgcgaatgg taccagcgtg tgtaccagtc cctctgcccc
361 acatcctggg tcacagactg ggatgagcaa cgggctgaag gcacgtttcc cgggaagatc
421 tgaactggct gcattctcct ttcctctgtc ctccatcctt ctcccaggat ggtgaagggg
481 gacctggtac ccagtgatcc ccaccccagg atcctaaatc atgacttacc tgctaataaa
541 aactcattgg aaaagtgaaa aaaaaaaaaa aaaaaaaa (SEQ ID NO:41)

```

FIGURE 24A

COXVIb (coxVIb gene, last exon and flanking sequence, NM_001863)

```

MAEDMETKIKNYKTAPFDSRFPNQTRNCWQNYLDFHRCQKAM
TAKGGDISVCEWYQRVYQSLCPTSWVTDWDEQRAEGTFPGKI (SEQ ID NO:42)

```

FIGURE 24B

34/115

TCF4 (NM_030756)

```

1  gggtttttttt ttttaccccc ctttttttatt tattattttt ttgcacattg agcggatcct
61  tgggaacgag agaaaaaaga aacccaaact cacgcgtgca gaagatctcc ccccccttcc
121 cctccccctcc tccctctttt cccctcccca ggagaaaaag acccccaagc agaaaaaagt
181 tcaccttgga ctctgtctttt tcttgcaata ttttttgggg gggcaaaact ttgaggggggt
241 gatTTTTTTTT ggcttttctt cctccttcat ttttcttcca aaattgctgc tggtaggggtga
301 aaaaaaaatg ccgcagctga acggcgggtg aggggatgac ctaggcgcca acgacgaact
361 gatttccttc aaagacgagg gcgaacagga ggagaagagc tccgaaaact cctcggcaga
421 gagggattta gctgatgtca aatcgtctct agtcaatgaa tcagaaacga atcaaaacag
481 ctccctccgat tccgaggcgg aaagacggcc tccgcctcgc tccgaaagt tccgagacaa
541 atcccgggaa agtttggaag aagcggccaa gaggcaagat ggaggggtct ttaagggggc
601 accgtatccc ggctaccctc tcatcatgat ccccgacctg acgagccctc acctcccaa
661 cggatcgctc tcgcccaccg cccgaacctc tctccagatg aaatggccac tgcttgatgt
721 ccaggcaggg agcctccaga gtagacaagc cctcaaggat gcccggtccc catcaccggc
781 acacattgtc tctaacaaag tgccagtggg gcagcaccct caccatgtcc acccctcac
841 gcctcttata acgtacagca atgaacactt cacgcgggga aaccacctc cacacttacc
901 agccgacgta gacccccaaa caggaatccc acggcctcgc caccctccag atatatcccc
961 gtattaccca ctatcgctg gcaccgtagg acaaatcccc catcgctag gatgggttagt
1021 accacagcaa ggtcaaccag tgtaccaat cacgacagga ggattcagac acccctacc
1081 cacagctctg accgtcaatg cttcctgtgc caggttccct ccccatatgg tcccaccaca
1141 tcatacgcta cacacgacgg gcattccgca tccggccata gtcacacca cagtcaaaca
1201 ggaatcgctc cagagtgatg tcggctcact ccatagtcca aagcatcagg actccaaaaa
1261 ggaagaagaa aagaagaagc cccacataaa gaaacctctt aatgcattca tgttgtatat
1321 gaaggaaatg agagcaaagg tcgtagctga gtgcacgttg aaagaaagcg cggccatcaa
1381 ccagatcctt gggcggaggt ggcattgact gtccagagaa gagcaagcga aatactacga
1441 gctggcccg aaggagcgac agcttcata gcaactgtac cccggctggt ccgcgcggga
1501 taactatgga aagaagaaga agaggaagag ggacaagcag ccgggagaga ccaatgaaca
1561 cagcgaatgt ttcctaaatc cttgcctttc acttcctcgc attacagacc tcagcgtctc
1621 taagaaatgc cgagcgcgct ttggccttga tcaacagaat aactggtgcg gcccttgtag
1681 gagaaaaaaa aagtgcgttc gctacatata aggtgaaggc agctgcctca gccaccctc
1741 ttcagatgga agcttactag attcgctctc cccctccccg aacctgctag gctccctcc
1801 ccgagacgcc aagtcacaga ctgagcagac ccagcctctg tcgctgtccc tgaagcccga
1861 cccctggcc cacctgtcca tgatgcctcc gccaccgccc ctctgtctcg ctgaggccac
1921 ccacaaggcc tcgcccctct gtcccaacgg ggccctggac ctgccccag ccgctttgca
1981 gcctgccgcc cctcctcat caattgcaca gccgtcgact tcttggttac attccacag
2041 ctccctggcc gggaccagc cccagccgct gtcgctcgtc accaagtctt tagaatagct
2101 ttagcgtcgt gaaccccgct gctttgttta tggttttgtt tcaactttct taatttgccc
2161 cccaccccc ccttgaaagg ttttgttttg tactctctta attttggtcc atgtggctac
2221 attagttgat gtttatcgag ttcattggtc aatatttgac ccattcttat ttcaatttct
2281 ctttttaaat atgtagatga gagaagaacc tcatgattgg taccaaaatt tttatcaaca
2341 gctgtttaaa gtctttgtag cgttttaaaa atatatatat atacataact gttatgtagt
2401 tcggatagct tagtttttaa agactgatta aaaaacaaaa aaaa (SEQ ID NO:43)

```

FIGURE 25A

35/115

TCF4 (NM_030756)

MPQLNGGGGDDLGADELISFKDEGEQEEKSSENSSAERDLADV
KSSLVNESETNQNSSSDSEAERRPPPRSESFRDKSRESLEEAAKRQDGGLFKGPPYPG
YPFIMIPDLTSPYLPNGSLSPARTYLQMKWPLLDVQAGSLQSRQALKDARSPSPAHI
VSNKVPVQHPHHVHPLTPLITYSNEHFTPGNPPPHLPADVDPKTGIPRPPHPPDISP
YYPLSPGTVGQIPHPLGWLVPQQGQPVYPITTTGGFRHPYPTALTVDNASVSRFPHPMVP
PHHTLHTTGIPHPAIVTPTVKQESSQSDVGSLSHSSKHQDSKKEEEKKKPHIKKPLNAF
MLYMKEMRAKVVAECTLKESAAINQILGRRWHALSREEQAKYYELARKERQLHMQLYP
GWSARDNYGKKKKRKRDKQPGETNEHSECFLNPCLSLPPIITDLSAPKKCRARFGLDQQ
NNWCGPCRKKKCVRYIQEGSCLSPSSDGSLLDSPPPSPNLLGSPPRDAKSQTEQT
QPLSLSLKPDPLAHLMMPPPPALLAEATHKASALCPNGALDLPALQPAAPSSSI
AQPSTSWLHSHSSLAGTQPQPLSLVTKSLE (SEQ ID NO:44)

FIGURE 25B

36/115

CAD17 (liver-intestine cadherin, NM_004063)

```

1  agggagtggt cccgggggag atactccagt cgtagcaaga gtctcgacca ctgaatggaa
61  gaaaaggact ttttaaccacc attttgtgac ttacagaaag gaatttgaat aaagaaaact
121 atgataacttc agggcccatct tcactccctg tgtcttctta tgctttatth ggcaactgga
181 tatggccaag aggggaagtt tagtggaccc ctgaaaccca tgacattttc tatttatgaa
241 ggccaagaac cgagtcaaat tatattccag ttaaggcca atcctcctgc tgtgactttt
301 gaactaactg gggagacaga caacatattt gtgatagaac gggagggact tctgtattac
361 aacagagcct tggacaggga aacaagatct actcacaatc tccagggtgc agccctggac
421 gctaattggaa ttatagtggg ggggtccagtc cctatcacca tagaagtga ggacatcaac
481 gacaatcgac ccacgtttct ccagtcacaa tacgaaggct cagtaaggca gaactctcgc
541 ccaggaaagc ccttcttgta tgtcaatgcc acagacctgg atgatccggc cactcccaat
601 ggccagcttt attaccagat tgtcatccag cttcccatga tcaacaatgt catgtacttt
661 cagatcaaca acaaaacggg agccatctct cttaccggag agggatctca ggaattgaat
721 cctgctaaga atccttccta taatctgggt atctcagtga aggacatggg aggccagagt
781 gagaattcct tcagtgtatc cacatctgtg gatatcatag tgacagagaa tatttggaag
841 gcacaaaaac ctgtggagat ggtggaaaac tcaactgatc ctcaccccat caaaatcact
901 caggtgcggt ggaatgatcc cgggtgcacaa tattccttag ttgacaaaga gaagctgcca
961 agattcccat tttcaattga ccaggaagga gatatttacg tgactcagcc cttggaccga
1021 gaagaaaagg atgcatatgt tttttatgca gttgcaaagg atgagtacgg aaaaccactt
1081 tcatatccgc tggaaattca tgtaaaagtt aaagatatta atgataatcc acctacatgt
1141 ccgtcaccag taaccgtatt tgagggtccag gagaatgaac gactgggtaa cagtatcggg
1201 acccttactg cacatgacag ggatgaagaa aatactgcca acagttttct aaactacagg
1261 attgtggagc aaactcccaa acttcccatg gatggactct tcctaattca aacctatgct
1321 ggaatgttac agttagctaa acagtccctg aagaagcaag atactcctca gtacaactta
1381 acgatagagg tgtctgacaa agatttcaag accctttggt ttgtgcaaat caacgttatt
1441 gatatcaatg atcagatccc catctttgaa aaatcagatt atggaaacct gactcttgct
1501 gaagacacaa acattgggtc caccatctta accatccagg ccactgatgc tgatgagcca
1561 tttactggga gttctaaaat tctgtatcat atcataaagg gagacagtga gggacgcctg
1621 ggggttgaca cagatcccca taccaacacc ggatatgtca taattaaaaa gcctcctgat
1681 tttgaaacag cagctgtttc caacattgtg ttcaaagcag aaaatcctga gcctctagt
1741 tttggtgtga agtacaatgc aagttctttt gccaaagtta cgcttattgt gacagatgtg
1801 aatgaagcac ctcaattttc ccaacacgta ttccaagcga aagtcagtga ggaatagct
1861 ataggcacta aagtgggcaa tgtgactgcc aaggatccag aaggtctgga cataagctat
1921 tcaactgagg gagacacaag aggttggtct aaaattgacc acgtgactgg tgagatcttt
1981 agtgtggctc cattggacag agaagccgga agtccatctc ggggtacaagt ggtggccaca
2041 gaagtggggg ggtcttccct gagctctgtg tcagagttcc acctgatcct tatggatgtg
2101 aatgacaacc ctcccaggct agccaaggac tacacgggct tgttcttctg ccatcccctc
2161 agtgcacctg gaagtctcat tttcgaggct actgatgatg atcagcactt atttcggggg
2221 ccccatthta catthttccct cggcagtggg agcttacaaa acgactggga agtttccaaa
2281 atcaatggta ctcatgcccg actgtctacc aggcacacag agtttgagga gagggagat
2341 gtcgtcttga tccgcataca tgatgggggt cggccaccct tgggaaggca tgtttcttta
2401 ccagttacat tctgcagttg tgtggaagga agttgtttcc ggccagcagg tcaccagact
2461 gggataccca ctgtgggcat ggcagttggt atactgctga ccaccttctt ggtgattggt
2521 ataattttag cagttgtgtt tatccgcata aagaaggata aaggcaaaga taatgttgaa
2581 agtgcacaag catctgaagt caaacctctg agaagctgaa tttgaaaagg aatgtttgaa
2641 tttatatagc aagtgtctat tcagcaacaa ccatctcatc ctattacttt tcatctaacy
2701 tgcattataa ttttttaaac agatattccc tcttgtcctt taatatttgc taaatatttc
2761 ttttttgagg tggagtcttg ctctgtcgcc caggctggag tacagtgggt tgatcccagc
2821 tcaactgcaac ctccgcctcc tgggttcaca tgattctctt gcctcagctt cctaagtagc
2881 tgggtttaca ggcaccacc accatggcca gctaattttt gtatttttaa tagagacggg
2941 gtttcgcat tttggccaggc tgggtctgaa ctctgacgt caagtgatct gcctgccttg
3001 gtctcccaat acaggcatga accactgcac ccacctactt agatatttca tgtgctatag
3061 acattagaga gatttttcat ttttccatga catttttctt ctctgcaaat ggcttagcta

```

FIGURE 26A

37/115

```
3121 cttgtgtttt tcccttttgg ggcaagacag actcattaaa tattctgtac attttttctt
3181 tatcaaggag atatatcagt gttgtctcat agaactgcct ggattccatt tatgtttttt
3241 ctgattccat cctgtgtccc cttcatcctt gactcctttg gtatttcact gaatttcaaa
3301 catttgctcag agaagaaaaa cgtgaggact caggaaaaat aaataaataa aagaacagcc
3361 ttttccctta gtattaacag aaatgtttct gtgtcattaa ccatctttta tcaatgtgac
3421 atgttgctct ttggctgaaa ttcttcaact tggaaatgac acagaccacac agaaggtgtt
3481 caaacacaac ctactctgca aaccttggtg aaggaaccag tcagctggcc agatttcctc
3541 actacctgcc atgcatacat gctgcgcatg ttttcttcat tcgtatgtta gttaaagttt
3601 ggttattata tatttaacat gtggaagaaa acaagacatg aaaagagtgg tgacaaatca
3661 agaataaaca ctggttgtag tcagttttgt ttgttaa (SEQ ID No:45)
```

FIGURE 26B

38/115

CAD17 (liver-intestine cadherin, NM_004063)

MILQAHLHSLCLLMLYLATGYGQEGKFSGPLKPMTFISIYEGQEP
SQIIFQFKANPPAVTFELTGETDNIFVIEREGLLYYNRALDRETRSTHNLQVAALDAN
GIIVEGPVPITIEVKDINDNRPTFLQSKYEGSVRQNSRPGKPFLYVNATDLDDPATPN
GQLYYQIIVIQLPMINNVMYFQINNKTGAISLTREGSQELNPAKNPSYNLVISVKDMGG
QSENSFSDTTSVDIIVTENIWKAPKPVEMVENSTDPHPKITQVRWNDPGAQYSLVDK
EKLPRFPFSIDQEGDIYVTQPLDREKDAYVFYAVAKDEYGKPLSYPLEIHVKVKDIN
DNPPTCPSPTVFEVQENERLGNSIGTLTAHDRDEENTANSFLNYRIVEQTPKLPMDG
LFLIQTYAGMLQLAKQSLKKQDTPQYNLTIEVSDKDFKTLCFVQINVIDINDQIPIFE
KSDYGNLTLAEDTNIGSTILTIQATDADEPFTGSSKILYHIKGDSEGR LGVDTDPHT
NTGYVIIKKPLDFETA AVSNIVFKAENPEPLVFGVKYNASSFAKFTLIVTDVNEAPQF
SQHV FQAKVSEDVAIGTKVGNVTAKDPEGLDISYSLRGDTRGWLKIDHVTGEIFSVAP
LDREAGSPYRVQVVATEVGGSSLSSVSEFHLILMDVNDNPPRLAKDYTG LFFCHPLSA
PGSLIFEATDDDQHLFRGPHFTFSLGSGSLQNDWEVSKINGTHARLSTRHTEFEEREY
VVLIRINDGGRPPLEGIVSLPVTFCSCVEGSCFRPAGHQTGIPTVGMVAVGILLTTLLV
IGIILAVVFIRIKKDKGKDNVESAQASEVKPLRS (SEQ ID NO:46)

FIGURE 26C

39/115

CLDN15 (claudin 15, NM_014343)

```

1  ctcgtaaca gctgccgcgc gcaggcttag ctcattcctc tgacctgcca ggaagcagag
61 agaccacag agcaggaggg aggcagaaag tggagacgga cctgagcccg aggaagaggg
121 aggcagaggg tgaggctgat tccaccccag cctgcctgga caacctcct tagccgcagc
181 cccttccagt tccctagggg ttctgcccct cccctctctt ggggcaccag cccccaggg
241 tcctgcatcc caccatgtcg atggctgtgg aaacctttgg cttcttcatg gcaactgtgg
301 ggctgctgat gctgggggtg actctgccaa acagctactg gcgagtgtcc actgtgcacg
361 ggaacgtcat caccaccaac accatcttcg agaacctctg gtttagctgt gccaccgact
421 ccctgggcgt ctacaactgc tgggagttcc cgtccatgct ggccctctct ggggtatattc
481 aggcctgccg ggcactcatg atcaccgcca tcctcctggg ctctctcggc ctcttgctag
541 gcatagcggg cctgcgctgc accaacattg ggggcctgga gctctccagg aaagccaagc
601 tggcggccac cgcaggggcc ctccacattc tggcgggtat ctgcgggatg gtggccatct
661 cctggtagcg cttcaacatc acccgggact tcttcgacct cttgtacccc ggaaccaagt
721 acgagctggg ccccgccttc tacctggggg ggagcgctc actgatctcc atcctgggtg
781 gcctctgcct ctgctccgcc tgetgctgcg gctctgacga ggaccagcc gccagcgccc
841 ggcgcccta ccaggctccc gtgtccgtga tgcccgtcgc cacctcggac caagaaggcg
901 acagcagctt tggcaaatac ggcagaaacg cctacgtgta gcagctctgg ccggtgggccc
961 ccgctgtctt cccactgccc caaggagagg ggacctggcc gggggccatt cccctatagt
1021 aacctcaggg gccggccacg ccccgctccc gtagccccgc cccggccacg gcccgtgtc
1081 ttgcactctc atggcccctc caggccaaga actgctcttg ggaagtcgca tatctcccct
1141 ctgaggctgg atccctcatc ttctgacctt gggttctggg ctgtgaaggg gacgggtgtcc
1201 ccgcacgttt gtattgtgta taaatacatt cattaataaa tgcatttgt gaccgttc

```

(SEQ ID NO:47)

FIGURE 27A

CLDN15 (claudin 15, NM_014343)

```

MSMAVETFGFFMATVGLMLGVTLPSYWRVSTVHGNVITNTI
FENLWFSCATDSLGVYNCWEFPSMLALSGYIQACRALMITAILLGLGLLLGIAGLRC
TNIGGLELSRKAKLAATAGALHILAGICGMVAISWYAFNITRDFDPLYPGTYELGP
ALYLGWSASLISILGGLCLCSACCCGSDPAASARRPYQAPVSVMPVATSDQEGDSS
FGKYGRNAYV (SEQ ID NO:48)

```

FIGURE 27B

40/115

CFTR (chloride channel, NM_000492)

```

1 aattggaagc aaatgacatc acagcaggtc agagaaaaag ggttgagcgg caggcaccca
61 gagtagtagg tctttggcat taggagcttg agcccagacg gccctagcag ggaccccagc
121 gcccagagaga ccatgcagag gtcgcctctg gaaaaggcca gcgttgcttc caaacctttt
181 ttcagctgga ccagaccaat tttgaggaaa ggatacagac agcgcttga attgtcagac
241 atataccaaa tcccttctgt tgattctgct gacaatctat ctgaaaaatt ggaaagagaa
301 tgggatagag agctggcttc aaagaaaaat cctaaactca ttaatgccct tcggcgatgt
361 tttttctgga gatttatgtt ctatggaatc tttttatatt taggggaagt caccaaagca
421 gtacagcctc tcttactggg aagaatcata gcttcctatg acccgataa caaggaggaa
481 cgctctatcg cgatttatct aggcataggg ttatgccttc tctttattgt gaggacactg
541 ctctacacc cagccatttt tggccttcac cacattggaa tgcagatgag aatagctatg
601 tttagtttga tttataagaa gactttaaag ctgtcaagcc gtgttctaga taaaataagt
661 attggacaac ttgttagtct cctttccaac aacctgaaca aatttgatga aggacttgca
721 ttggcacatt tcgtgtggat cgctcctttg caagtggcac tcctcatggg gctaactctg
781 gagttgttac aggcgtctgc cttctgtgga cttgggttcc tgatagtctt tgcccttttt
841 caggctgggc tagggagaat gatgatgaag tacagagatc agagagctgg agagatcagt
901 gaaagacttg tgattacctc agaaatgatt gaaaatatcc aatctgttaa ggcatactgc
961 tgggaagaag caatggaaaa aatgattgaa aacttaagac aaacagaact gaaactgact
1021 cggaaggcag cctatgtgag atacttcaat agctcagcct tcttctcttc agggttcttt
1081 gtggtgtttt tatctgtgct tccctatgca ctaatcaaag gaatcatcct ccggaataa
1141 ttcaccacca tctcattctg cattgttctg cgcattggcg tccactcgga atttccctgg
1201 gctgtacaaa catggtatga ctctcttgga gcaataaaca aaatacagga tttcttacia
1261 aagcaagaat ataagacatt ggaatataac ttaacgacta cagaagtagt gatggagaat
1321 gtaacagcct tctgggagga gggatttggg gaattatttg agaaagcaaa acaaaacaat
1381 aacaaaacta aaacttctaa tgggtgatgac agcctcttct tcacttctt
1441 ggtactcctg tccgtgaaaga tattaatttc aagatagaaa gaggacagtt gttggcggtt
1501 gctggatcca ctggagcagg caagacttca cttctaata tgaattatggg agaactggag
1561 ccttcagagg gtaaaattaa gcacagtggg agaatttcat tctgttctca gttttctctg
1621 attatgcctg gcaccattaa agaaaatatc atctttggtg tttcctatga tgaatataga
1681 tacagaagcg tcatcaaagc atgccaacta gaagaggaca tctccaagtt tgcagagaaa
1741 gacaatatag ttcttggaga aggtggaatc acactgagtg gaggtcaacg agcaagaatt
1801 tcttttagcaa gagcagtata caaagatgct gatttgtatt tattagactc tccttttgga
1861 tacctagatg ttttaacaga aaaagaaata tttgaaagct gtgtctgtaa atgatggct
1921 aacaaaacta ggattttggt cacttctaaa atggaacatt taaagaaagc tgacaaaata
1981 ttaattttga atgaaggtag cagctatttt tatgggacat tttcagaact ccaaaatcta
2041 cagccagact ttagctcaaa actcatggga tgtgattctt tcgaccaatt tagtgcagaa
2101 agaagaaatt caatcctaac tgagacctta caccgtttct cattagaagg agatgctcct
2161 gtctcctgga cagaaacaaa aaaacaatct tttaaacaga ctggagagtt tggggaaaaa
2221 aggaagaatt ctattctcaa tccaatcaac tctatacgaa aattttccat tgtgcaaaag
2281 actcccttac aaatgaatgg catcgaagag gattctgatg agcctttaga gagaaggctg
2341 tccttagtac cagattctga gcaggagag gcgatactgc ctgcacatcag cgtgatcagc
2401 actggcccca cgcttcaggc acgaaggagg cagtctgtcc tgaacctgat gacacactca
2461 gttaaccaag gtcagaacat tcaccgaaag acaacagcat ccacacgaaa agtgtcactg
2521 gccctcagg caaacttgac tgaactggat atatattcaa gaaggttatc tcaagaaact
2581 ggcttggaag taagtgaaga aattaacgaa gaagacttaa aggagtgcct ttttgatgat
2641 atggagagca taccagcagt gactacatgg aacacatacc ttcgatatat tactgtccac
2701 aagagcttaa tttttgtgct aatttggtgc ttagtaattt ttctggcaga ggtggctgct
2761 tctttggttg tgctgtggct ccttggaaac actcctcttc aagacaaagg gaatagtact
2821 catagtagaa ataacagcta tgcagtgatt atcaccagca ccagtctgta ttatgtgttt
2881 tacatttacg tgggagtagc cgacactttg cttgctatgg gattcttcag aggtctacca
2941 ctggtgcata ctctaatac agtgtcgaaa attttacac acaaaatggt acattctgtt
3001 cttcaagcac ctatgtcaac cctcaacagc ttgaaagcag gtgggattct taatagattc
3061 tccaaagata tagcaatttt ggatgacctt ctgcctctta ccatatttga cttcatccag

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FIGURE 28A

41/115

```

3121 ttgttattaa ttgtgattgg agctatagca gttgtcgcag ttttacaacc ctacatcttt
3181 gttgcaacag tgccagtgat agtggctttt attatgttga gagcatattt cctccaaacc
3241 tcacagcaac tcaaacaact ggaatctgaa ggcaggagtc caattttcac tcatcttggt
3301 acaagcttaa aaggactatg gacacttcgt gccttcggac ggcagcctta ctttgaaact
3361 ctgttccaca aagctctgaa tttacatact gccaaactgg tcttgtagct gtcaacactg
3421 cgctggttcc aaatgagaat agaaatgatt tttgtcatct tcttcattgc tgttaccttc
3481 atttccattt taacaacagg agaaggagaa ggaagagttg gtattatcct gactttagcc
3541 atgaatatca tgagtacatt gcagtgggct gtaaaactcca gcatagatgt ggatagcttg
3601 atgcgatctg tgagccgagt ctttaagttc attgacatgc caacagaagg taaacctacc
3661 aagtcaacca aaccatacaa gaatggccaa ctctcgaaag ttatgattat tgagaattca
3721 cacgtgaaga aagatgacat ctggccctca gggggccaaa tgactgtcaa agatctcaca
3781 gcaaaatata cagaaggtgg aaatgccata ttagagaaca tttccttctc aataagtcct
3841 ggccagaggg tgggcctctt ggggaagaact ggatcagggg agagtacttt gttatcagct
3901 tttttgagac tactgaacac tgaaggagaa atccagatcg atggtgtgtc ttgggattca
3961 ataactttgc aacagtggag gaaagccttt ggagtgatac cacagaaagt atttattttt
4021 tctggaacat ttagaaaaaa cttggatccc tatgaacagt ggagtgatca agaaatatgg
4081 aaagttgcag atgaggttgg gctcagatct gtgatagaac agtttctctg gaagcttgac
4141 tttgtccttg tggatggggg ctgtgtccta agccatggcc acaagcagtt gatgtgcttg
4201 gctagatctg ttctcagtaa ggccaagatc ttgctgcttg atgaaccag tgctcatttg
4261 gatccagtaa cataccaaat aattagaaga actctaaaac aagcatttgc tgattgcaca
4321 gtaattctct gtgaacacag gatagaagca atgctggaat gccacaactt tttggtcata
4381 gaagagaaca aagtgcggca gtacgattcc atccagaaac tgctgaacga gaggagcctc
4441 ttccggcaag ccatcagccc ctccgacagg gtgaagctct tccccaccg gaactcaagc
4501 aagtgcgaag ctaagcccca gattgctgct ctgaaagagg agacagaaga agaggtgcaa
4561 gatacaaggc tttagagagc agcataaatg ttgacatggg acatttgcct atggaattgg
4621 agctcgtggg acagtcacct catggaattg gagctcgtgg aacagttacc tctgcctcag
4681 aaaacaagga tgaattaagt ttttttttaa aaaagaaaca tttggtaagg ggaattgagg
4741 aactgatata gggctcttgat aaatggcttc ctggcaatag tcaaattgtg tgaaaggtag
4801 ttcaaactct tgaagattta ccacttgtgt tttgcaagcc agattttcct gaaaaccctt
4861 gccatgtgct agtaatttga aaggcagctc taaatgtcaa tcagcctagt tgatcagctt
4921 attgtctagt gaaactcggt aatttgtagt gttggagaag aactgaaatc atacttctta
4981 gggttatgat taagtaatga taactggaaa cttcagcggt ttatataagc ttgtattcct
5041 ttttctctcc tctccccatg atgttttagaa acacaactat attgtttgct aagcattcca
5101 actatctcat ttccaagcaa gtattagaat accacaggaa ccacaagact gcacatcaaa
5161 atatgcccc a ttcaacatct agtgagcagt caggaaagag aacttccaga tcttggaat
5221 cagggttagt attgtccagg tctacccaaa atctcaatat ttcagataat cacaatacat
5281 cccttacctg ggaaagggct gttataatct ttcacagggg acaggatggg tcccttgatg
5341 aagaagttga tatgcctttt cccaactcca gaaagtgaca agctcacaga cctttgaact
5401 agagtttagc tggaaaagta tgttagtgca aattgtcaca ggacagcct tctttccaca
5461 gaagctccag gttagaggtg tgtaagtaga taggcatgg gcactgtggg tagacacaca
5521 tgaagtccaa gcatttagat gtataggttg atggtggtat gttttcaggc tagatgtatg
5581 tacttcatgc tgtctacact aagagagaat gagagacaca ctgaagaagc accaatcatg
5641 aattagtttt atatgcttct gttttataat tttgtgaagc aaaatttttt ctctaggaaa
5701 tatttatttt aataatgttt caaacatata ttacaatgct gtatttttaa agaattgatta
5761 tgaattacat ttgtataaaa taatttttat atttgaaata ttgacttttt atggcactag
5821 tatttttatg aaatattatg ttaaaactgg gacaggggag aacctagggt gatattaacc
5881 aggggcatg aatcaccttt tggctgtggg ggaagccttg ggggtgatcg agttgttgcc
5941 cacagctgta tgattcccag ccagacacag cctcttagat gcagttctga agaagatggg
6001 accaccagtc tgactgtttc catcaagggt acactgcctt ctcaactcca aactgactct
6061 taagaagact gcattatatt tattactgta agaaaatata acttgtcaat aaaatccata
6121 catttgtgt (SEQ ID NO:49)

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FIGURE 28B

42/115

CFTR (chloride channel, NM_000492)

MQRSPLEKASVVS KLFFSWTRPILRKGYRQRLELSDIYQIPSV
SADNLSEKLEREWDRELASKKNPKLINALRRCFWRFMFYGI
FLYLGEVTKAVQPLLL
GRIIASYDPDNKEERSIAIYLGIGLCLLFIVRTLHHPAIFGL
HHIGMQMRIAMFSLI
YKKTLLKSSRVLDKISIGQLVSLSSNNLNKFDEGLALAHFV
WIAPLQVALLMGLIWEL
LQASAFGLGLFIVLALFQAGLGRMMMKYRDQRAGKISERL
VITSEMIENIQSVKAYC
WEEAMEKMIENLRQTELKLTRKAAYVRYFNSSAFFFSGFF
VFLSVLPYALIKGIILR
KIFTTISFCIVLRMAVTRQFPWAVQTYWDSLGAINKIQDF
LQKQEYKTLEYNLTTTEV
MENVTAFWEEGFGELFEKAKQNNNNRKTNSGDDSLFFSN
FSLGTPVLKDINFKIER
QLLAVAGSTGAGKTSLLMMIMGELEPSEGKIKHSGRISFCS
QFSWIMPGTIKENIIF
VSYDEYRYRSVIKACQLEEDISKFAEKDNIVLGEGGITLS
GGQRRARISLARAVYKDA
LYLLDSPFGYLDVLTKEKIFESCVCKLMANKTRILVTSKM
EHLKKADKILILNEGSS
FYGTFSELQNLQPDFSSKLMGCDSFDQFSAERRNSILTET
LHRFSLEGDAPVSWTET
KQSFQKTGEFGEKRKNSILNPINSIRKFSIVQKTPQMNGI
EEDSDEPLERRLSLVP
SEQGEAILPRISVISTGPTLQARRRQSVLNLMTHSVNGQ
QNIHRKTTASTRKVSLAP
ANLTELDIYSRRLSQETGLEISEEINEEDLKECLFDDMES
IPAVTTWNTYLYRYITVH
SLIFVLIWCLVIFLAEVAASLVVLWLLGNTPLQDKGNSTH
SRNNSYAVIITSTSSYY
FYIYVGVA DTLLAMGFFRGLPLVHTLITVSKILHHKMLH
SVLQAPMSTLNTLKAGGI
NRFSKDIAILDLLPLTIFDFIQLLLIVIGAI AVVAVLQPY
IFVATVPVIVAFIMLR
YFLQTSQQLKQLESEGRSPIFTHLVTSKGLWTLRAFGRP
YFETLPHKALNLHTAN
FLYLSTLRWFQMRIEMIFVIFFI AVTFISILTTGEGEGR
VGIILTLAMNIMSTLQWA
NSSIDVDLSLMRSVSRVFKFIDMPTEGKPTKSTKPYKNG
QLSKVMIENSHVKKDDIW
SGGQMTVKDLTAKYTEGGNAILENISFSISPGQRVGLLG
RTGSGKSTLLSAFLRLN
EGEIQIDGVSWDSITLQQWRKAFGVI PQKVFIFSGTFR
KNLDPYEQWSDQEIWKVAD
VGLRSVIEQFPGLDFVLVDGGCVLSHGKQLMCLARSVL
SKAKILLLDEPSAHLDP
TYQIIRRTLKQAFADCTVILCEHRIEAMLECCQFLVIEE
NKVRQYDSIQKLLNERSL
RQAISPSDRVKLFPHRNSSKCKSKPQIAALKEETEEVQD
TRL (SEQ ID NO:50)

FIGURE 28C

43/115

H2R (histamine H2 receptor, NM_022304)

```

1  ctctgcctt ccactgactc cagagagggg gatccccagt acttgactcc atcacgcaga
61  tgggagcagg caccagctat ggagagggat acagctgcgt ctccacatga cccatcctgc
121 atgacaccaa agccaccgcc agacagtgcc tcggattcta tgcaaaacct gggaagcggg
181 gacctacccc agccccggga ggaagctagc tcttcagggg accgtctgag gactggagtt
241 tgatccatga acctggcttc gaggccttgc ttttctctct tcttcattca tattcattcc
301 caacacctta gaagggtgtg cttaatttat ttctagaaaa gcagcccaga gtcagtcatt
361 gaagccttcc ccacccccctg gccaaaaaaa aaaaaaaaaa aaaactggac acattttggg
421 tctgttggga gcttggagtc cagtgggttg catagtgtgc acattgggag cagagaagaa
481 gcaaccaggg gccctgatca ggggactgag ccgtagagtc ccaggatggc acccaatggc
541 acagcctctt ccttttgcct ggactctacc gcatgcaaga tcaccatcac cgtggtcctt
601 gcggctctca tcctcatcac cgttgctggc aatgtggtcg tctgtctggc cgtgggcttg
661 aaccgccggc tccgcaacct gaccaattgt ttcacgtgt ccttggctat cactgacctg
721 ctctcgggcc tcctgggtgt gcccttctct gccatctacc agctgtcctg caagtggagc
781 tttggcaagg tcttctgcaa tatctacacc agcctggatg tgatgctctg cacagcctcc
841 attcttaacc tcttcatgat cagcctcgac cggtaactgc ctgtcatgga cccactgcgg
901 taccctgtgc tggtcacccc agttcgggtc gccatctctc tggctctaat ttgggtcatc
961 tccattaccc tgtcctttct gtctatccac ctgggggtgga acagcaggaa cgagaccagc
1021 aagggcaatc ataccacctc taagtgcaaa gtccaggtca atgaagtgtg cgggctgggtg
1081 gatgggctgg tcaccttcta cctcccgcga ctgatcatgt gcatcaccta ctaccgcatc
1141 ttcaaggctg cccgggatca ggccaagagg atcaatcaca ttagctcctg gaaggcagcc
1201 accatcaggg agcaciaaagc cacagtgaca ctggccgccg tcatgggggc cttcatcatc
1261 tgctggtttc cctacttcac cgcgtttgtg taccgtgggc tgagagggga tgatgccatc
1321 aatgaggtgt tagaagccat cgttctgttg ctgggctatg ccaactcagc cctgaacccc
1381 atcctgtatg ctgcgctgaa cagagacttc cgcaccgggt accaacagct cttctgctgc
1441 aggctggcca accgcaactc ccacaaaact tctctgaggt ccaacgcctc tcagctgtcc
1501 aggacccaaa gccgagaacc caggcaacag gaagagaaac ccctgaagct ccagggtgtg
1561 agtgggacag aagtcacggc cccccaggga gccacagaca ggtaaatagc ctagccattg
1621 gtgcacagga tgggggcaat gggaggggat gctactgatg ggaatgatta agggagctgc
1681 tgtttaggtg gtgctgggtt atgttctagg aactcttcat gagcactttg taaacaccct
1741 cttgcttaat cctcccaacg gcccccaaag gtagaactta gctccctttt aaaaggagca
1801 cattaataatt ctcagaggac ttggcaaggg ccgcacagct ggggcat (SEQ ID NO:51)

```

FIGURE 29A

H2R (histamine H2 receptor, NM_022304)

```

APNGTASSFCLDSTACKITITVVLAVLILITVAGNVVCLAVG
NRRLRNLNCFIVSLAITDLLLGLLVLPFSAIYQLSCKWSFGKVFCNIYTSLDVMLC
ASILNLFMISLDRYCAVMDPLRYPVLVTPVRVAISLVLIWVISITLSFLSIHLGWNS
NETSKGNHTTSKCKVQVNEVYGLVDGLVTFYLPLLIMCITYYRIFKVARDQAKRINH
SSWKAATIREHKATVTLAAVMGAFIICWFPYFTAFVYRGLRGDDAINEVLEAIVLWL
YANSALNPILYAALNRDFRTGYQQLFCCRLANRNSHKTSLSRNASQLSRTQSREPRQ
BEKPLKLQVWSGTEVTAPQGATDR (SEQ ID NO:52)

```

FIGURE 29B

44/115

EGFR (NM_005228)

```

1 gagctagccc cggcggccgc cgccgccag accggacgac aggccacctc gtcggcgctcc
61 gcccagagtc ccgcctcgcc gccaacgcca caaccaccgc gcacggcccc ctgactccgt
121 ccagttattga tcgggagagc cggagcgagc tcttcgggga gcagcgatgc gaccctccgg
181 gacggccggg gcagcgctcc tggcgctgct ggctgcgctc tgcccggcga gtcgggctct
241 ggagggaaaag aaagtttgcc aaggcacgag taacaagctc acgcagttgg gcacttttga
301 agatcatttt ctcagcctcc agaggatgtt caataactgt gaggtgggtc ttgggaattt
361 ggaaattacc tatgtgcaga ggaattatga tctttccttc ttaaagacca tccaggaggt
421 ggctggttat gtccctcattg ccctcaacac agtggagcga attccttttg aaaacctgca
481 gatcatcaga ggaaatatgt actacgaaaa ttcctatgcc ttagcagctc tatctaacta
541 tgatgcaaat aaaaccggac tgaaggagct gcccatgaga aatttacagg aaatcctgca
601 tggcgccgtg cggttcagca acaaccctgc cctgtgcaac gtggagagca tccagtggcg
661 ggacatagtc agcagtgact ttctcagcaa catgtcgatg gacttccaga accacctggg
721 cagctgccaa aagtgtgatc caagctgtcc caatgggagc tgctgggggtg caggagagga
781 gaactgccag aaactgacca aaatcatctg tgcccagcag tgctccgggc gctgccgtgg
841 caagtccccc agtgactgct gccacaacca gtgtgctgca ggctgcacag gccccgggga
901 gagcgactgc ctggtctgcc gcaaattccg agacgaagcc acgtgcaagg acacctgccc
961 cccactcatg ctctacaacc ccaccacgta ccagatggat gtgaaccccc agggcaaata
1021 cagctttggg gccacctgcg tgaagaagtg tccccgtaat tatgtgggtg cagatcacgg
1081 ctctgtcgct cgagcctgtg gggccgacag ctatgagatg gaggaagacg gcgtccgcaa
1141 gtgtaagaag tgcgaagggc cttgcccga aagtgtgaac ggaataggta ttggtgaatt
1201 taaagactca ctctccataa atgctacgaa tattaacac ttcaaaaact gcacctccat
1261 cagtggcgat ctccacatcc tgccggtggc atttaggggt gactccttca cacatactcc
1321 tctctgggat ccacaggaac tggatattct gaaaaccgta aaggaaatca cagggttttt
1381 gctgattcag gcttggcctg aaaacaggac ggacctccat gcctttgaga acctagaaat
1441 catacgcggc aggaccaagc aacatggtca gttttctctt gcagtcgtca gcctgaacat
1501 aacatccttg ggattacgct ccctcaagga gataagtgat ggagatgtga taatttcagg
1561 aaacaaaaat ttgtgctatg caaatacaat aaactggaaa aaactgtttg ggacctccgg
1621 tcagaaaacc aaaattataa gcaacagagg tgaaaacagc tgcaaggcca caggccaggt
1681 ctgccatgcc ttgtgctccc ccgagggtcg ctggggcccc gagcccagg actgcgtctc
1741 ttgccggaat gtcagccgag gcagggaatg cgtggacaag tgcaaccttc tggaggggtg
1801 gccaaaggag tttgtggaga actctgagtg catacagtgc caccagagt gcctgcctca
1861 ggccatgaac atcacctgca caggacgggg accagacaac tgtatccagt gtgcccacta
1921 cattgacggc cccactgcg tcaagacctg cccggcagga gtcattgggag aaaacaacac
1981 cctggtctgg aagtacgcag acgcccggcca tgttgccac ctgtgccatc caaactgcac
2041 ctacggatgc actgggccag gtcttgaagg ctgtccaacg aatgggccta agatcccgtc
2101 catcgccact gggatggtgg gggccctcct ctgtctgctg gtggtggccc tggggatcgg
2161 cctcttcatt cgaaggcgcc acatcgttcg gaagcgacg ctgcgaggc tgctgcagga
2221 gagggagctt gtggagcctc ttacaccagc tggagaagct cccaaccaag ctctcttgag
2281 gatcttgaag gaaactgaat tcaaaaagat caaagtgtg ggctccgggtg cgttcggcac
2341 ggtgtataag ggactctgga tcccagaagg tgagaaagtt aaaattcccg tcgctatcaa
2401 ggaattaaga gaagcaacat ctccgaaagc caacaaggaa atcctcgatg aagcctacgt
2461 gatggccagc gtggacaacc ccacgtgtg ccgcctgctg ggcatctgcc tcacctccac
2521 cgtgcagctc atcacgcagc tcatgccctt cggctgcctc ctggactatg tccgggaaca
2581 caaagacaat attggctccc agtacctgct caactggtgt gtgcagatcg caaagggcat
2641 gaactacttg gaggaccgtc gcttgggtga ccgcgacctg gcagccagga acgtactggg
2701 gaaaacaccg cagcatgtca agatcacaga ttttgggctg gccaaactgc tgggtgcgga
2761 agagaaagaa taccatgcag aaggaggcaa agtgcctatc aagtggatgg cattggaatc
2821 aattttacac agaattctata cccaccagag tgatgtctgg agctacgggg tgaccgtttg
2881 ggagttgatg acctttggat ccaagccata tgacggaatc cctgccagcg agatctcctc
2941 catcctggag aaaggagaac gcctccctca gccaccata tgtaccatcg atgtctacat
3001 gatcatggtc aagtgtgga tgatagacgc agatagtcgc ccaaagttcc gtgagttgat
3061 catcgaattc tccaaaatgg ccgagaccc ccagcgctac cttgtcattc agggggatga

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FIGURE 30A

45/115

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3121 aagaatgcat ttgccaagtc ctacagactc caacttctac cgtgccctga tggatgaaga
3181 agacatggac gacgtggtgg atgccgacga gtacctcacc ccacagcagg gcttcttcag
3241 cagccccctcc acgtcacgga ctccccctct gagctctctg agtgcaacca gcaacaattc
3301 caccgtgggt tgcattgata gaaatgggct gcaaagctgt cccatcaagg aagacagctt
3361 cttgcagcga tacagctcag accccacagg cgccttgact gaggacagca tagacgacac
3421 cttcctccca gtgcctgaat acataaacca gtccgttccc aaaaggcccg ctggctctgt
3481 gcagaatcct gtctatcaca atcagcctct gaaccccgcg ccacagcagg acccacacta
3541 ccaggacccc cacagcactg cagtgggcaa ccccgagtat ctcaacactg tccagcccac
3601 ctgtgtcaac agcacattcg acagccctgc ccactgggccc cagaaaggca gccaccaaat
3661 tagcctggac aaccctgact accagcagga cttctttccc aagggaagcca agccaaatgg
3721 catctttaag ggctccacag ctgaaaatgc agaataccta agggtcgcgc cacaaagcag
3781 tgaatttatt ggagcatgac cacggaggat agtatgagcc ctaaaaatcc agactctttc
3841 gatacccagg accaagccac agcaggtcct ccattcccaac agccatgccc gcattagctc
3901 ttagaccacac agactggttt tgcaacgttt acaccgacta gccaggaagt acttccacct
3961 cgggcacatt ttgggaagtt gcattccttt gtcttcaaac tgtgaagcat ttacagaaac
4021 gcatccagca agaataattgt ccctttgagc agaaatttat ctttcaaaga ggtatatttg
4081 aaaaaaaaaa aaaaagtata tgtgaggatt tttattgatt ggggatcttg gagtttttca
4141 ttgtcgctat tgatttttac ttcaatgggc tcttccaaca aggaagaagc ttgctggtag
4201 cacttgctac cctgagttca tccaggccca actgtgagca aggagcacaa gccacaagtc
4261 ttccagagga tgcttgattc cagtgttctc gcttcaaggc ttccactgca aaacactaaa
4321 gatccaagaa ggccttcatg gcccagcag gccggatcgg tactgtatca agtcatggca
4381 ggtacagtag gataagccac tctgtccctt cctgggcaaa gaagaaacgg aggggatgaa
4441 ttcttccctta gacttacttt tgtaaaaatg tccccacggt acttactccc cactgatgga
4501 ccagtggttt ccagtcatga gcgttagact gacttgtttg tcttccattc cattgttttg
4561 aaactcagta tgccgcccct gtcttgctgt catgaaatca gcaagagagg atgacacatc
4621 aaataataac tcggattcca gccacattg gattcatcag catttggacc aatagcccac
4681 agctgagaat gtggaatacc taaggataac accgcttttg ttctcgcaaa aacgtatctc
4741 ctaatttgag gctcagatga aatgcatcag gtcccttggg gcatagatca gaagactaca
4801 aaaatgaagc tgctctgaaa tctcctttag ccatacccc aaccccccaa aattagtttg
4861 tgttacttat ggaagatagt tttctcctt tacttcaact caaaagcttt ttactcaaag
4921 agtatatggt cctccagggt cagctgcccc caaacccct ccttacgctt tgtcacacaa
4981 aaagtgtctc tgccctgagt catctattca agcacttaca gctctggcca caacagggca
5041 ttttacagggt gcgaatgaca gtagcattat gagtagtgtg aattcaggta gtaaatatga
5101 aactagggtt tgaaattgat aatgctttca caacatttgc agatgtttta gaaggaaaaa
5161 agttccttcc taaaataatt tctctacaat tggaagattg gaagattcag ctagttagga
5221 gccattttt tcctaactctg tgtgtgccct gtaacctgac tggttaacag cagtcctttg
5281 taaacagtgt tttaaactct cctagtcaat atccacccca tccaatttat caaggaagaa
5341 atggttcaga aaatattttc agcctacagt tatgttcagt cacacacaca tacaaaatgt
5401 tccttttgct tttaaagtaa tttttgactc ccagatcagt cagagccct acagcattgt
5461 taagaaagta tttgattttt gtctcaatga aaataaaaact atattcattt cc (SEQ ID

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NO: 53)

FIGURE 30B

46/115

EGFR (NM_005228)

RPSGTAGAALLALLAALCPASRALEEKKVCQGTSNKLTQLGTF
DHFLSLQRMFNNCEVVLGNLEITYVQRNYDLSFLKTIQEVAGYVLIALNTVERIPLE
LQIIRGNMYYENSALAVLSNYDANKTGLKELPMRNLQEILHGAVRFSNNPALCNVE
IQWRDIVSSDFLSNMSMDFQNLHLSGSCQKCDPSCPNGSCWGAGEENCQKLTKIICAQQ
SGRCRGKSPSDCCHNQCAAGCTGPRESDCLVCRKFRDEATCKDTCPLMLYNPTTYQ
DVNPEGKYSFGATCVKKCPRNYVVTDHGSCVRACGADSYEMEEDGVRKCKKCEGPCR
VCNGIGIGEFKDSLSINATNIKHFKNCTSIGDLHILPVAFRGDSFTHTPPLDPQEL
ILKTVKEITGFLLIQAWPENRTDLHAFENLEIIRGRTKQHGGQFSLAVVSLNITSLGL
SLKEISDGDVIIISGNKNCYANTINWKKLFGTSGQKTKIISNRGENSCKATGQVCHA
CSPEGCWGPEPRDCVSCRNVSRGRECVDKCNLLEGEPRFVENSECIQCHPECLPQA
NITCTGRGPDNCIQCAHYIDGPHCVKTCBPAGVMGENNTLVWKYADAGHVCHLCHPNC
YGCTGPGLEGCPPTNGPKIPSIATGMVGALLLLLVVALGIGLGMRRRHIVRKRTLRL
QERELVEPLTPSGEAPNQALLRILKETEFKKIKVLGSGAFGTVYKGLWIPGEKVKI
VAIKELREATSPKANKEILDEAYVMASVDNPHVCRLLGICLTSTVQLITQLMPFGCL
DYVREHKDNIGSQYLLNWCVQIAKGMNYLEDRLVHRDLAARNVLVKTPQHVKITDF
LAKLLGAEEKEYHAEGGKVPIKWMALLESILHRIYTHQSDVWSYGVTVWELMTFGSKP
DGIPASEISSILEKGERLPQPPICTIDVYMIMVKCWMIDADSRPKFRELIIEFSKMA
DPQRYLVIQGDERMHLPSPTDSNFYRALMDEEDMDDVVDADAYLIPQQGFFSSPSTS
TPLSSSLATSNNSTVACIDRNLQSCPIKEDSFLQRYSSDPTGALTEDSIDDTFLP
PEYINQSVPKRPAGSVQNPVYHNQPLNPAPSRDPHYQDPHSTAVGNPEYLNTPVQPTC
NSTFDSPAHWAKGSHQISLDNPDYQQDFFPKEAKPNGIFKGSTAENAEYLRVAPQS
EFIGA (SEQ ID NO:54)

FIGURE 30C

47/115

EPHB2 (NM_004442)

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1  gccccgggaa ggcagccat ggctctgcgg aggctggggg ccgcgtgct gctgctgccg
61  ctgctcgccg ccgtggaaga aacgctaata gactccacta cagcgactgc tgagctgggc
121  tggatgggtgc atcctccatc agggtaggaa gaggtgagtg gctacgatga gaacatgaac
181  acgatccgca cgtaccaggt gtgcaacgtg tttgagtcaa gccagaacaa ctggctacgg
241  accaagttaa tccggcgccg tggcgccac cgcattccac tggagatgaa gttttcgggtg
301  cgtgactgca gcagcatccc cagcgtgcct ggctcctgca aggagacctt caacctctat
361  tactatgagg ctgactttga ctcgccacc aagaccttcc ccaactggat ggagaatcca
421  tgggtgaagg tggataccat tgcagccgac gagagcttct cccagggtgga cctgggtggc
481  cgcgtcatga aaatcaaac cagagtgccg agcttcggac ctgtgtcccg cagcggcttc
541  tacctggcct tccaggacta tggcggtgc atgtccctca tcgccgtgcg tgtcttctac
601  cgcaagtgcc cccgcatcat ccagaatggc gccatcttcc aggaaccctt gtcgggggct
661  gagagcacat cgctgggtgg tggccggggc agctgcacgc ccaatgcgga agaggtggat
721  gtacccatca agctctactg taacggggac ggcgagtggc tgggtgccc atcggtgctgc
781  atgtgcaaa caggttctga ggccgttgag aatggcaccg tctgccaggg ttgtccatct
841  gggactttca aggccaacca aggggatgag gcctgtaccc actgtcccat caacagccgg
901  accacttctg aaggggccac caactgtgtc tgccgcaatg gctactacag agcagacctg
961  gacccctgg acatgccctg cacaaccatc ccctccgcgc cccaggctgt gatttccagt
1021  gtcaatgaga cctccctcat gctggagtgg acccctcccc gcgactccgg aggccgagag
1081  gacctcgtct acaacatcat ctgcaagagc tgtggctcgg gccgggggtgc ctgcaccgcg
1141  tgccggggaca atgtacagta cgcaccagc cagctaggcc tgaccgagcc agcatttac
1201  atcagtgacc tggtggccca caccagtac accttcgaga tccaggctgt gaacggcgtt
1261  actgaccaga gccccttctc gcctcagttc gcctctgtga acatcaccac caaccaggca
1321  gctccatcgg cagtgtccat catgcatcag gtgagccgca ccgtggacag cattaccctg
1381  tcgtgggtccc agccggacca gccaatggc gtgatcctgg actatgagct gcagtactat
1441  gagaaggagc tcagttagta caacgccaca gccataaaaa gccccaccaa cacggtcacc
1501  gtgcagggcc tcaaagccgg cgccatctat gtcttccagg tgccgggacg caccgtggca
1561  ggctacgggc gctacagcgg caagatgtac ttccagacca tgacagaagc cgagtaccag
1621  acaagcatcc aggagaagtt gccactcatc atcggtcctt cggcgctcgg cctggtcttc
1681  ctcatgtctg tggttgtcat cgccatcgtg tgtaacagaa gacgggggtt tgagcgtgct
1741  gactcggagt acacggacaa gctgcaacac tacaccagtg gccacatgac cccaggcatg
1801  aagatctaca tcgatccttt cacctacgag gacccaacg aggcagtgcg ggagtttgcc
1861  aaggaaattg acatctcctg tgtcaaaatt gagcaggtga tcggagcagg ggagtttgcc
1921  gaggtctgca gtggccacct gaagctgcca ggcaagagag agatctttgt ggccatcaag
1981  acgctcaagt cgggctacac ggagaagcag cgccgggact tcctgagcga agcctccatc
2041  atgggccagt tcgaccatcc caacgtcatc cacctggagg gtgtcgtgac caagagcaca
2101  cctgtgatga tcatcaccga gttcatggag aatggctccc tggactcctt tctccggcaa
2161  aacgatgggc agttcacagt catccagctg gtgggcatgc ttcggggcat cgcagctggc
2221  atgaagtacc tggcagacat gaactatgtt caccgtgacc tggctgcccg caacatcttc
2281  gtcaacagca acctggtctg caaggtgtcg gactttgggc tctcacgctt tctagaggac
2341  gatacctcag accccacctc caccagtgcc ctgggcgga agatccccat ccgctggaca
2401  gccccggaag ccatccagta ccggaagttc acctcggcca gtgatgtgtg gagctacggc
2461  attgtcatgt gggaggtgat gtccatggg gagcggccct actgggacat gaccaaccag
2521  gatgtaatca atgccattga gcaggactat cggctgccac cgcccatgga ctgcccagac
2581  gccctgcacc aactcatgct ggactgttg cagaaggacc gcaaccaccg gcccaagttc
2641  ggccaaattg tcaacacgct agacaagatg atccgcaatc ccaacagcct caaagccatg
2701  gcgccccctc cctctggcat caacctgccg ctgctggacc gcacgatccc cgactacacc
2761  agctttaaca cgggtggacga gtggctggag gccatcaaga tggggcagta caaggagagc
2821  ttcgccaatg ccggttccac ctcccttgac gtctgtctc agatgatgat ggaggacatt
2881  ctccgggttg gggctcactt ggctggccac cagaaaaaaa tctgaacag tatccaggtg
2941  atgcgggcgc agatgaacca gattcagctt gtggaggttt gacattcacc tgccctcggc
3001  cacctcttcc tccaagcccc gcccctctg cccacgtgc cggccctcct ggtgctctat

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FIGURE 31A

48/115

```

3061 ccactgcagg gccagccact cgccaggagg ccacgggcca cgggaagaac caagcgggtgc
3121 cagccacgag acgtcaccaa gaaaacatgc aactcaaacg acggaaaaaa aaagggaatg
3181 ggaaaaaaga aaacagatcc tgggaggggg cgggaaatac aaggaatatt ttttaaagag
3241 gattctcata aggaaagcaa tgactgttct tgcgggggat aaaaaagggc ttgggagatt
3301 catgcgatgt gtccaatcgg agacaaaagc agtttctctc caactccctc tgggaagggtg
3361 acctggccag agccaagaaa cacttttcaga aaaacaaatg tgaagggggag agacagggggc
3421 cgcccttgge tcctgtccct gctgctcctc taggcctcac tcaacaacca agcgcctgga
3481 ggacgggaca gatggacaga cagccaccct gagaaccctt ctgggaaaat ctattcctgc
3541 caccactggg caaacagaag aatttttctg tctttggaga gtatttttaga aactccaatg
3601 aaagacactg tttctcctgt tggctcacag ggctgaaagg ggcttttgtc ctcttggtgc
3661 agggagaacg cggggacccc agaaagggtc gccttcctga ggatgggcaa cccccagggtc
3721 tgcagctcca ggtacatatc acgcgcacag cctggcagcc tggccctcct ggtgccact
3781 cccgccagcc cctgcctcga ggactgatac tgcagtgact gccgtcagct ccgactgccg
3841 ctgagaaggg ttgatcctgc atctgggttt gtttacagca attcctggac tggggggtat
3901 tttggtcaca ggggtggtttt ggtttagggg gtttgtttgt tgggttgttt tttgtttttt
3961 ggtttttttt aatgacaatg aagtgacact ttgacatttc ctaccttttg aggacttgat
4021 ctttctccag gaagaagggt ctttctgctt actgacttag gcaatacacc aagggcgaga
4081 ttttatatgc acatttctgg atttttttat acggttttca ttgacactct tccctcctcc
4141 cacctgccac caggcctcac caaagcccac tgccatgggg ccatctgggc cattcagaga
4201 ctggagttag atttgggtgt ggaggggggag gcgccaaagg ggaggagctt cccactccag
4261 gactgttgat gaaagggaca gattgaggag gaagtgggct ctgaggctgc agggctggaa
4321 gtccttgccc acttcccact ctcctgcccc aatctatcta gtacttccc ggcaaatagg
4381 cccctttgag gctcctgagt gccctcagat ggtcaaaacc cagttttccc tctgggagcc
4441 taaaccaggg tgcacggag gccaggaccc ggatcattca ctgtgatacc ctgccctcca
4501 gaggggtgag tcagagacac gggcaagcat gcctcttccc ttccttgagg agaaagtgtg
4561 tgatttctct cccacctcct tccccccacc agaccttgc tgggcctaaa ggtcttggcc
4621 atggggacgc cctcagtcta gggatctggc cacagactcc ctctgtgaa ccaacacaga
4681 caccaagca gagcaatcag ttagtgaatt g (SEQ ID NO:55)

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FIGURE 31B

EPHB2 (NM_004442)

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ALRRLGAAALLLPLLAVEETLMDSTTATAELGWMVHPPSGWE
VSGYDENMNTIRTYQVCNVFESSQNNWLRTKFIRRRGAHRIHVEMKFSVRDCSSIPS
PGSCKETFNLYYYEADFDSATKTFPNWMENPWVKVDTIAADESFSQVDLGGRVMKIN
EVRSFGPVSRSFYLAQDYGGCMSLIAVRVFYRKCPRIIQNGAIFQETLSGAESTS
VAARGSCIANAEVDVPIKLYCNGDGEWLVP IGRMCKAGFEAVENGTVCRGCPSGT
KANQGDEACTHCPINSRTTSEGATNCVCRNGYYRADLDPLDMPCTTIPSAQAVISS
NETSLMLEWTPPRDSGGREDLVYNIICKSCGSGRGACTRCGDNVQYAPRQLGLTEPR
YISDLLAHTQYTFEIQAVNGVTDQSPFSPQFASVNITNQAAPSAVSIMHQVSRVTD
ITLSWSQPDQPNGVILDYELQYYEKELSEYNATAIKSPTNTVTVQGLKAGAIYVFQV
ARTVAGYGRYSGKMYFQTMTEAEYQTSIQEKLPLIIIGSSAAGLVFLIAVVVIAIVCN
RRGFERADSEYTDKLQHYTSGHMTPGMKIYIDPFTYEDPNEAVREFAKEIDISCVKI
QVIGAGEFGEVCSGHLKLPKREIFVAIKTLKSGYTEKQRRDFLSEASIMGQFDHPN
IHLEGVVTKSTPVMII TEFMENGLSDSFLRQNDGQFTVIQLVGMRLGIAAGMKYLAD
NYVHRDLAARNILVNSNLVCKVSDFGLSRFLEDDTSDPTYTSALGGKIPIRWTAPEA
QYRKFTSASDVWSYGI VMWEVMSYGERPYWDMTNQDVINAIEQDYRLPPPMDCPSAL
QLMLDCWQKDRNHRPKFGQIVNTLDKMIRNPNSLKAMAPLSSGINLPLLDRTIPDYT
FNTVDEWLEAIKMGQYKESFANAGFTSFDDVVSQMMMEDILRVGVTLAGHQKKILNSI
VMRAQMNQIQSVEV (SEQ ID NO:56)

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FIGURE 31C

49/115

CRIPTO CR-1 (NM_003212)

```

1 ggagaatccc cggaaaggct gagtctccag ctcaagggtca aaacgtccaa ggccgaaagc
61 cctccagttt cccctggacg ccttgctcct gcttctgcta cgaccttctg gggaaaacga
121 atttctcatt ttcttcttaa attgccattt tcgctttagg agatgaatgt tttcctttgg
181 ctgttttggc aatgactctg aattaaagcg atgctaacgc ctcttttccc cctaattgtt
241 aaaagctatg gactgcagga agatggcccg cttctcttac agtgtgattt ggatcatggc
301 catttctaaa gtctttgaac tgggattagt tgccgggctg ggccatcagg aatttgctcg
361 tccatctcgg ggatacctgg ccttcagaga tgacagcatt tggccccagg aggagcctgc
421 aattcggcct cggctctccc agcgtgtgcc gcccatgggg atacagcaca gtaaggagct
481 aaacagaacc tgctgcctga atgggggaac ctgcatgctg gggctccttt gtgcctgccc
541 tccctccttc tacggacgga actgtgagca cgatgtgcgc aaagagaact gtgggtctgt
601 gccccatgac acctggctgc ccaagaagtg ttccctgtgt aaatgctggc acggtcagct
661 ccgctgcttt cctcaggcat ttctaccggg ctgtgatggc cttgtgatgg atgagcacct
721 cgtggccttc aggactccag aactaccacc gtctgcacgt actaccactt ttatgctagt
781 tggcatctgc ctttctatac aaagctacta ttaatcgaca ttgacctatt tccagaaata
841 caattttaga tatcatgcaa atttcatgac cagtaaaggc tgctgtcata atgtcctaac
901 tgaaagatga tcattttgtag ttgccttaaa ataatgaata caatttccaa aatggtctct
961 aacatttctt tacagaacta cttcttactt ctttgccctg cctctctcca aaaaactact
1021 tcttttttca aaagaaagtc agccatatct ccattgtgcc taagtccagt gtttcttttt
1081 tttttttttt ttgagacgga gtctcactct gtcaccagg ctggactgca atgacgcgat
1141 cttggttcac tgcaacctcc gcatccgggg ttcaagccat tctcctgcct aagcctcca
1201 agtaactggg attacaggca tgtgtcacca tgcccagcta atttttttgt attttagtag
1261 agatgggggt ttcaccatat tggccagtct ggtctcgaac tctgaccttg tgatccatcg
1321 atcagcctct cgagtgtctg gattacacac gtgagcaact gtgcaaggcc tgggtgttct
1381 tgatacatgt aattctacca aggtcttctt aatatgttct tttaaatgat tgaattatat
1441 gttcagatta ttggagacta attctaattg ggacctaga atacagtttt gagtagagtt
1501 gatcaaaatc aattaaaata gtctctttta aaggaaagaa aacatcttta aggggaggaa
1561 ccagagtgtc gaaggaatgg aagtccatct gcgtgtgtgc agggagactg ggtaggaaag
1621 aggaagcaaa tagaagagag aggttgaaaa acaaaatggg ttacttgatt ggtgattagg
1681 tgggtgtaga gaagcaagta aaaaggctaa atggaagggc aagtttccat catctataga
1741 aagctatata agacaagaac tccccttttt ttcccaaagg cattataaaa agaatgaagc
1801 ctcttagaaa aaaaaattat acctcaatgt cccaacaag attgcttaat aaattgtgtt
1861 tcctccaagc tattcaattc ttttaactgt tgtagaagac aaaatgttca caatatattt
1921 agttgtaaac caagtgatca aactacatat tgtaaagccc attttttaaa tacattgtat
1981 atatgtgtat gcacagtaaa aatggaaact atattgacct aaaaaaaaaa aaa (SEQ ID
NO:57)

```

FIGURE 32A

CRIPTO CR-1 (NM_003212)

```

DCRKMARFSYSVIWIMAISKVFELGLVAGLGHQEFARPSRGYL
FRDDSIWPQEEPAIRPRSSQVRVPPMGIQHSKELNRTCCLNGGTCMLGSFCACPPSFY
RNCEHDVRKENCGSVPHDTWLPKKCSLCKCWHGQLRCFPQAFLPGLVMDLHVA
RTELPSPSARTTTTFLVGLCLSIQSY (SEQ ID NO:58)

```

FIGURE 32B

50/115

Eprin B1 (NM_004429)

```

1 gagtagacag cacagcggca gcggaggag tctatgagag ctggacagca gtgggaggtt
61 tgtgaggctc gcaactggccg cagaccctcg ggctcgatcg cccgggagcc aggactcggc
121 gacgcgagge tgccgggcta cccggccgag gcttcggggg cgcaactaa tgggactggc
181 tcgctcggca gcatctcccc gctcttctaa gtacactgag cagggcccg cgtgaagtag
241 aagctgtccg ggggcgcgta gcccggagtc ccagtgtggc cgggaggaac ggagcccgtg
301 ccaggggcggc ccagtcggga gcccggggac cgagcttgtg ctgtggggaa acccccactt
361 cttccaaggg acagcgatcc cgggacggtc gaggcgtcgg ggcggtcacc gagacctctg
421 cgggaagacc ccgtcgggga gaggcgcgc agccccgaag cgtctcggga agtcgagcgg
481 aatcgggcgg gatcaccggg gggcgcagag ccccgctcgc gcctcgtgcg gcagcggaga
541 gcccaggaga acgagccctc gggggccgaa gcccatgccc ggggtggggg cggctgcccc
601 gtgagtcctc ctggccggcc gggcggagaa gagcgacacc gaagccggcg ggaggggagc
661 acttcaagge cggcggctgc ggaggatggg cgcctgagcg gctccgagcg cagcgcggca
721 gaggaaggcg aggcgagctt tggtagggag gcgccaaggg atcccgaagt gcagtctgcc
781 cccgggaaga tggtcggcc tgggcagcgt tggctcggca agtggcttgt ggcgatggtc
841 gtgtgggcgc tgtgccggct cgccacaccg ctggccaaga acctggagcc cgtatcctgg
901 agtccctca accccaagtt cctgagtggg aagggttgg tgactatcc gaaaattgga
961 gacaagctgg acatcatctg ccccagaca gaagcagggc ggcctatga gtactacaag
1021 ctgtacctgg tgcggcctga gcaggcagct gcctgtagca cagtctcga cccaacgtg
1081 ttggtcacct gcaataggcc agagcaggaa atacgcttta ccatcaagtt ccaggagttc
1141 agccccaact acatgggcct ggagttcaag aagcaccatg attactacat tacctcaaca
1201 tccaatggaa gcctggaggg gctggaaaac cgggagggcg gtgtgtgccg cacacgcacc
1261 atgaagatca tcatgaaggt tgggcaagat cccaatgctg tgacgcctga gcagctgact
1321 accagcagge ccagcaagga ggcagacaac actgtcaaga tggccacaca ggcccctggt
1381 agtcggggct ccctgggtga ctctgatggc aagcatgaga ctgtgaacca ggaagagaa
1441 agtggcccg gtgcaagtgg gggcagcagc ggggacctg atggcttctt caactccaag
1501 ttggcattgt tactactgaa gctacgcaag cggcaccgca agcacacaca gcagcgggcg
1561 gctgccctct cgctcagtac cctggccagt cccaaggggg gcagtggcac agcgggcacc
1621 gagcccagcg acatcatcat tcccttacgg actacagaga acaactactg cccccactat
1681 gagaaggtga gtggggacta cgggcaccct gtctacatcg tccaagagat gccgccccag
1741 agccggcgga acatctacta caaggtctga gtgcccggca cggcctcagg cccccgaggg
1801 acagtcggcc tggaccggac ctctcctttc gccccacac cccctccctt tgccagctgt
1861 gccaccttt gtatttagtt ttgtagtttc ttggtttta taatccccct ttttccctg
1921 cccctaggct tcggaggggg gtgcttgtgc ccctaaccct catgctcttg tgccttcccc
2041 ctctggccag gcctctgggc tccgtggggg cggcccttct tgggaaggcag ggctggacac
2101 tgatggacag caggcaggga gacagtcccc tggccctgcc cctccctcgc ccccttgcc
2161 acctcccag gactgcttgt ccgctatcat cactgttttt aatgcttttg tgttcatttt
2221 ttagctgtca actcattttt atctgttttt tgaagaaaaa tggaaaaatg taaaaggcag
2281 cccctcccca ggctttgtga gcctggccca agccagtaca agagggcctg gggcacgatg
2341 tggtcagcca ggaagcatag gatgccattt cttttataga ttccttggtg tttctggtgg
2401 ggtaaggggc aggccagggc tgttcacgcc catgagggaa gaggaaagtg ccactgggca
2461 aggtgtccca cctccccctc ctgaccctcc tacgaggctt atcctggcaa tggggtagtc
2521 actgccaccc ttccacacac acacacacac acacacacac aaaaaaaat ccttccctg
2581 tgggattctt gggcatctcc tgcctccctc actctcacgg taattaatgt cttaattggc
2641 tgttgccctg ggaacaggag agctgctgca ggcagatgac ctcatggggg gtggaggggg
2701 gtgaggtgcc caggtggcta tttgccctgc agagctggga gtttcacccc cccccccac
2761 cctgttctct ccttaccttt ggcctccttt ggctgggtgg ggaacagag gccaggggtg
2821 gagacctaag cgggtataag accaggtggc ctgctccttt tctgggccct agcacagggtg
2881 ggtaaccccc acccaacca gctcctgctg ctgtcccagt cttgggctgg ggctggaaa
2941 gaggaagagg ctgcctgggg ctggccagc ccgctgtgca ctttgacccc agttccttgc
3001 cagcacggct gctaacagac tgccacttga gtgcgccttg caggcactcc cagagcagcc
3061 atgggaaggag ctggccctca caccatccac ctccacactg cctcctggcc agctgcccac
3121 cccagtgcca ggtgggagag ggagcagaa agccagcccc ttccagggtg cagtgcggaag
3181 ggtttttgtt tttgtttctg ttgccatttg tgtaaatact agtctttttg gaaaaaaat
3241 aatgtaaaga tgttttgtat aaactctgaa ttattttctt gttgcttttt tcttagaaaa
3301 aaatgagaac taaaaaaaaa aaattaacca catggaaaaa aaaaaa (SEQ ID NO:59)

```

FIGURE 33A

51/115

Eprin B1 (NM_004429)

MARPGQRWL GKWL VAMV VVALCRLATPLAKNLEPVSWSSLNPKF
LSGKGLVIYPKIGDKLDIICPRAEAGRPYEYYKLYLV RPEQAAACSTVLDPNVLVTCN
RPEQEIRFTIKFQEFSPNYMGLEFKKHHDYYITSTSNGSLEGLENREGGVCRTMTMKI
IMKVGQDPNAVTP EQLTTSRPSKEADNTVKMATQAPGSRGSLGDS DGKHETVNQEEKS
GPGASGGSSGDPD GFFNSKVALFAAVGAGCVIFLLIIIFLTVLLLKLKRHRKHTQQR
AAALSLSTLASPKGGSGTAGTEPSDIIIPLR TTENNYCPHYEKVSGDYGHPVYIVQEM
PPQSPANIYYKV (SEQ ID NO:60)

FIGURE 33B

52/115

MMP-17/MT4-MMP (NM_016155)

```

1  ccggcggggg cgccgcggag agcggaggggc gccgggctgc ggaacgcgaa gcgaggggcg
61  cgggaccctg cagcgcgccc gcgggcccct gtgagcgcca tgcggcgccg cgcagcccgg
121 ggaccgggce cgccgcccc caggcccgga ctctcgcggt tgcgctgct gccgctgccg
181 ctgctgctgc tgctggcgct ggggaccgce gggggctgcg ccgcgcccgc acccgcgccg
241 cgcgcgagg acctcagcct gggagtggag tggctaagca ggttcgggta cctgcccccg
301 gctgacccca caacagggca gctgcagacg caagaggagc tgtctaaggc catcacagcc
361 atgcagcagt ttggtggcct ggaggccacc ggcacccctg acgaggccac cctggccctg
421 atgaaaaccc cagcgtgctc cctgccagac ctccctgtcc tgaccagggc tcgcaggaga
481 cgccaggctc cagccccac caagtggaa aagaggaaac tgtcgtggag ggtccggacg
541 ttcccacggg actcaccact ggggcacgac acggtgcgtg cactcatgta ctacgccctc
601 aaggtctgga gcgacattgc gccctgaac ttccacgagg tggcgggcag caccgcccag
661 atccagatcg acttctccaa ggccgacct aacgacggct accccttcga cggccccggc
721 ggcaccgtgg cccacgcctt ctccccggc caccaccaca ccgcggggga caccacttt
781 gacgatgacg aggcctggac ctccgctcc tcggatgccc acgggatgga cctgtttgca
841 gtggctgtcc acgagtttg ccacgccatt ggggtaagcc atgtggccgc tgcacactcc
901 atcatgcggc cgtactacca gggcccggtg ggtgaccgc tgcgctacgg gctccctac
961 gaggacaagg tgcgctctg gcagctgtac ggtgtgcggg agtctgtgtc tcccacggcg
1021 cagcccaggg agcctcccct gctgccggag ccccagaca accggtccag cggcccggcc
1081 aggaaggacg tgcccacag atgcagcact cactttgacg cgggtggcca gatccgcggt
1141 gaagctttct tcttcaaagg caagtacttc tggcggctga cgcgggaccg gcacctggtg
1201 tccctgcagc cggcacagat gcaccgctt tggcggggcc tgcgctgca cctggacagc
1261 gtggacgccc tgtacgagcg caccagcgac cacaagatcg tcttctttaa aggagacagg
1321 tactgggtgt tcaaggacaa taacgtagag gaaggatacc cgcgccccgt ctccgacttc
1381 agcctcccg cgtggcgcat cgacgtgcc ttctcctggg ccacaatga caggacttat
1441 ttctttaagg accagctgta ctggcgctac gatgaccaca cgaggcacat ggaccccggc
1501 taccgccccc agagccccct gtggaggggt gtcccagca cgtggacga cccatgcgc
1561 tggctcgacg gtgcctccta ctcttccgt ggccaggagt actggaaagt gctggatggc
1621 gagctggagg tggcaccgg gtaccacag tccacggccc gggactggct ggtgtgtgga
1681 gactcacagg ccgatggatc tgtggctgcg ggcgtggacg cggcagaggg gccccgcgcc
1741 cctccaggac aacatgacca gagccgctcg gaggacgggt acgagggtctg ctcatgcacc
1801 tctggggcat cctctcccc gggggcccca ggcccactgg tggctgccac catgctgtg
1861 ctgctgccgc cactgtcacc aggcgcctg tggacagcgg ccaggccct gacgctatga
1921 cacacagcgc gagcccatga gaggacagag gcggtgggac agcctggcca cagagggcaa
1981 ggactgtgcc ggagtccctg ggggaggtgc tggcgcggga tgaggacggg ccaccctggc
2041 accggaaggc cagcagaggg cacggcccgc cagggtctgg caggctcagg tggcaaggac
2101 ggagctgtcc cctagtgagg gactgtgtg actgacgagc cgaggggtgg ccgctccaga
2161 aggggtgcca gtcaggccgc accgcgcca gccctctccg gccctggagg gagcatctcg
2221 ggctgggggc ccacccctct ctgtgccggc gccaccaacc ccaccacac tgctgcctgg
2281 tgctcccgcc ggcccacagg gcctccgtcc ccagggtccc agtggggcag ccctccccac
2341 agacgagccc ccacatggt gccgcggcac gtccccctg tgacgcgttc cagaccaaca
2401 tgacctctcc ctgctttgta aaaaaaaaaa aaaaaaaa (SEQ ID NO:61)

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FIGURE 34A

53/115

MMP-17/MT4-MMP (NM_016155)

MRRRAARGPGPPPPGGLSRLPLLPLPLLLLLLALGTRGGCAAPA
PAPRAEDLSLGVWLSRFGYLPADPTTGQLQTQEELSKAITAMQQFGGLEATGILDE
ATLALMKTPRCSLPDLPVLTQARRRRQAPAPTKWNKRNLNLSWRVRTFPDRDSPLGHDTV
ALMYYALKVWSDIAPLNFHEVAGSTADIQIDFSKADHNDGYPFDPGGTVAHAFFPGH
HHTAGDTHFDDDEAWTFRSSDAHGMDFAVAVHEFGHAIGLSHVAAAHSIMRPYYQGP
VGDLPLRYGLPYEDKVRVWQLYGVRESVSPTAQPEEPPLLPEPPDNRSSAPPRKDVPHR
CSTHFDAVAQIRGEAFFFKGKYFWRLTRDRHLVSLQPAQMHRFWRGLPLHLDSDAVY
ERTSDHKIVFFKGDRYWVFKDNNVEEGYPRPVSDFSLPFGGIDAAFSWAHNDRTYFFK
DQLYWRYDDHTRHMDPGYPAQSPLWRGVPSTLDDAMRWSDGASYFFRGQEYWKVLDGE
LEVAPGYPQSTARDWLVCGDSQADGSVAAGVDAAEGPRAPPGQHDQSRSEDGYEVCSC
TSGASSPPGAPGPLVAATMLLLLPPLSPGALWTAAQALTL (SEQ ID NO:62)

FIGURE 34B

54/115

MMP26 (NM_021801)

```

1  gacaaatgag ggtttggcat gcagctcgtc atcttaagag ttactatctt cttgccctgg
61  tgtttcgccg ttccagtgcc ccctgctgca gaccataaag gatgggactt tgttgagggc
121 tatttccatc aatttttccct gaccgagaag gagtcgccac tccttaccce ggagacacaa
181 acacagctcc tgcaacaatt ccatcggaat gggacagacc tacttgacat gcagatgcat
241 gctctgtac accagcccca ctgtgggggtg cctgatgggt cgcacacctc catctcgcca
301 ggaagatgca agtggaataa gcacactcta acttacagga ttatcaatta cccacatgat
361 atgaagccat ccgcagtga agacagtata tataatgcag tttccatctg gagcaatgtg
421 acccctttga tattccagca agtgcagaat ggagatgcag acatcaaggt ttctttctgg
481 cagtggggcc atgaagatgg ttggcccttt gatggggccag gtggtatctt aggccatgcc
541 tttttaccac attctggaaa tcctggagtt gtccattttg acaagaatga acactggtca
601 gcttcagaca ctggatataa tctgttcctg gttgcaactc atgagattgg gcattctttg
661 ggcctgcagc actctgggaa tcagagctcc ataatgtacc ccacttactg gtatcacgac
721 cctagaacct tccagctcag tgccgatgat atccaaagga tccagcattt gtatggagaa
781 aaatgttcat ctgacatacc ttaatgttag cacagaggac ttattcaacc tgcctttca
841 gggagtttat tggaggatca aagaactgaa agcactagag cagccttggg gactgctagg
901 atgaagccct aaagaatgca acctagtcag gttagctgaa ccgacactca aaacgctact
961 gagtcacaat aaagattgtt ttaaagagta aaaaaaaaaa aaaaaaaaaa (SEQ ID

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NO:63)

FIGURE 35A

MMP26 (NM_021801)

```

MQLVILRVTI FLPWCF AVPVPPAADHKGWDFVEGYFHQFFLTEK
SPLL TQETQTQL LQQFHRNGTDLLDMQMHAL LHQPHCGVPDGS DTSISPGRCKW NKH
LTYRI INYPHDMKPSAVKDSIYNAVSIWSNV TPLIFQQVQNGDADI KVSFWQWAHED
WPF DGP GGILGHAF LPNSGNPGVVF DKNHWSASDTGYNLFLVATHEIGHSLGLQH
GNQSSIMYPTYWYHDPRTFQLSADDI QRIQHLYGEKCSSDIP (SEQ ID NO:64)

```

FIGURE 35B

55/115

ADAM10 (NM_001110)

```

1  gaattcgagg atccgggtac catgggcggc ggcaggccta gcagcacggg aaccgtcccc
61  cgcgcgcatg cgcgcgcccc tgaagcgctt gggggacggg tatgggcggg aggtaggggg
121 gcggtccgcg gtgccagttg ggtgcccgcg cgtcacgtgg tgaggaagga ggcggaggtc
181 tgagtttcga gggagggggg gagagaagag ggaacgagca agggaaggaa agcggggaaa
241 ggaggaagga aacgaacgag ggggagggag gtccctgttt tggaggagct aggagcgttg
301 ccggccccctg aagtggagcg agagggaggt gcttcgccgt ttctcctgcc aggggaggtc
361 ccggcttccc gtggaggctc cggaccaagc cccttcagct tctccctccg gatcgatgtg
421 ctgctgttaa cccgtgagga ggcggcggcg cggcgagcgg cagcggaaga tgggtgtgct
481 gagagtgtta attctgtctc tctcctgggc ggcggggatg ggaggtcagt atgggaatcc
541 tttaaataaa tatatcagac attatgaagg attatcttac aatgtggatt cattacacca
601 aaaacaccag cgtgccaaaa gagcagtcct acatgaagac caatttttac gtctagattt
661 ccatgcccac ggaagacatt tcaacctacg aatgaagagg gacacttccc ttttcagtga
721 tgaattttaa gtagaaacat caaataaagt acttgattat gatacctctc atatttacac
781 tggacatatt tatggtgaag aaggaaagtt tagccatggg tctgttattg atggaagatt
841 tgaaggattc atccagactc gtggtggcac attttatgtt gagccagcag agagatatat
901 taaagaccga actctgccat ttcactctgt catttatcat gaagatgata ttaactatcc
961 ccataataac ggtcctcagg ggggctgtgc agatcattca gtatttgaaa gtaatgaggaa
1021 ataccagatg actgggtgtag aggaagtaac acagatacct caagaagaac atgctgctaa
1081 tgggtccagaa cttctgagga aaaaacgtac aacttcagct gaaaaaataa cttgtcagct
1141 ttatatccag actgatcatt tgttctttaa atattacgga acacgagaag ctgtgattgc
1201 ccagatatcc agtcatgtta aagcgattga tacaatttac cagaccacag acttctccgg
1261 aatccgtaac atcagtttca tggtgaaacg cataagaatc aatacaactg ctgatgagaa
1321 ggaccctaca aatcctttcc gtttcccaa tattggtgtg gagaagtttc tgggaattgaa
1381 ttctgagcag aatcatgatg actactgttt ggcctatgtc ttcacagacc gagattttga
1441 tgatggcgta cttggtctgg cttgggttgg agcaccttca ggaagctctg ggaagatgtg
1501 tgaaaaaagt aaactctatt cagatggtta gaagaagtcc ttaaacactg gaattattac
1561 tgttcagaac tatgggtctc atgtacctcc caaagtctct cacattactt ttgctcacga
1621 agttggacat aactttggat ccccatcatg ttctggaaca gagtgcacac caggagaatc
1681 taagaatttg ggtcaaaaag aaaatggcaa ttacatcatg tatgcaagag caacatctgg
1741 ggacaaactt aacaacaata aattctcact ctgtagtatt agaaatataa gccaaagtct
1801 tgagaagaag agaaacaact gttttgttga atctggccaa cctattttgtg gaaatggaat
1861 ggtagaacaa ggtgaagaat gtgattgtgg ctatagtgc cagtgtaaag atgaatgctg
1921 cttcgatgca aatcaaccag agggaagaaa atgcaaactg aaacctggga aacagtgcag
1981 tccaagtcaa ggtccttgtt gtacagcaca atgtgcattc aagtcaaagt ctgagaagtg
2041 tcgggatgat tcagactgtg caagggaagg aatatgtaat ggcttcacag ctctctgcc
2101 agcatctgac cctaaaccaa acttcacaga ctgtaatagg catacacaa tgtgcattaa
2161 tgggcaatgt gcaggttcta tctgtgagaa atatggctta gaggagtgtg cgtgtgccag
2221 ttctgatggc aaagatgata aagaattatg ccatgtatgc tgtatgaaga aaatggaccc
2281 atcaacttgt gccagtacag ggtctgtgca gtggagtagg cacttcagtg gtcgaacct
2341 caccctgcaa cctggatccc cttgcaacga ttttagaggt tactgtgatg ttttcatgcg
2401 gtgcagatta gtagatgctg atggctctct agctaggctt aaaaaagcaa ttttttagtcc
2461 agagctctat gaaaacattg ctgaatggat tgtggctcat tgggtggcag tattacttat
2521 gggaattgct ctgatcatgc taatggctgg atttattaag atatgcagtg ttcatactcc
2581 aagtagtaat ccaaagttgc ctccctctaa accacttcca ggcactttaa agaggaggag
2641 acctccacag cccattcagc aaccccagcg tcagcggccc cgagagagtt atcaaaggg
2701 acacatgaga cgctaactgc agcttttggc ttggttcttc ctagtgccta caatgggaaa
2761 acttcactcc aaagagaaac ctattaagtc atcatctcca aactaaacct tcacaagtaa
2821 cagttgaaga aaaaatggca agagatcata tcctcagacc aggtggaatt acttaaat
2881 taaagcctga aaattccaat ttgggggtgg gaggtggaaa aggaacccaa ttttcttatg
2941 aacagatatt ttttaactta tggcacaagg tcttagaata ttattatgtg ccccggttcc
3001 cctgttcttc gttgctgcat tttcttcact tgcaggcaaa cttggctctc aataaacttt
3061 taccacaaat tgaaataaat atattttttt caactgccaa tcaaggctag gaggctcgac
3121 cacctcaaca ttggagacat cacttgccaa tgtacatacc ttgttatatg cagacatgta
3181 tttcttacgt aactgtact tctgtgtgca attgtaaaca gaaattgcaa tatggatgtt
3241 tctttgtatt ataaaatttt tccgctctta attaaaaatt actgtttaat tgacatactc
3301 aggataacag agaatggtgg tattcagtg tccaggattc tgtaatgctt tacacaggca
3361 gttttgaaat gaaaatcaat ttaccccatg gtaccgggat cctcgaattc (SEQ ID

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NO: 65)

FIGURE 36A

56/115

ADAM10 (NM_001110)

VLLRVLILLLSWAAGMGQYGNPLNKYIRHYEGLSYNVDSLHQ
HQRKRAVSHEDQFLRLDFHAHGRHFNLRMKRDTSLFSDEFKVETSNKVLDYDTSHI
TGHYIGEESFSHGVIDGRFEGFIQTRGGTFYVEPAERYIKDRTLPHFSVIYHEDD
NYPHKYGPQGGCADHSVFERMRKYQMTGVVEVTQIQEEHAANGPELLRKKRTTSAE
NTCQLYIQTDHLFFKYYGTRAVIAQISSHVKAIDTIYQTTFSGIRNISFMVKRIR
NTTADEKDPTNPFRFPNIGVEKFLELNSEQNHDDYCLAYVFTDRDFDDGVLGLAWVG
PSGSSGGICEKSKLYSDGKKKSLNTGIIITVQNYGSHVPPKVSHITFAHEVGHNFGSP
DSGTECTPGESKNLGQKENGNYIMYARATSGDKLNNNKFSLCSIRNISQVLEKKRNN
FVESGQPICGNGMVEQGEEDCGYSDQCKDECCFDANQPEGRKCKLKPGKQCSPSQG
CCTAQCAFKSKSEKCRDDSDCAREGICNGFTALCPASDPKPNFTDCNRHTQVCINGQ
AGSICEKYGLEECTCASSDGKDDKELCHVCCMKKMDPSTCASTGSVQWSRHFSGRTI
LQPGSPCNDFRGYCDVFMRCRLVDADGPLARLKKAIFSPELYENIAEWIVAHWWAVL
MGIALIMLMAGFIKICSVHTPSSNPKLPPPPLPGTLKRRRPPQPIQQPQRQRPRES
QMGHMRR (SEQ ID NO:66)

FIGURE 36B

57/115

ADAM1 (XM_132370)

```

1  cttgggtggg cagtgaagc caactgcagt cagcaagtgt gcgggcttaa gagttcttcc
61 agagcccaact tccattttct ttgttgcttt aactagagtc accagtctgt cttcattttt
121 atgggtgagac cattgggaga actaacttag attttaggct ctaatatagt tctgtggtaa
181 aaataagatc atgtaacact tatgcttttag aaatttccat agagaaggat catgtcttaa
241 agccaaaatt tatttggttag acacaaggat acgggaaagt agaacatcta aatactgtgt
301 gtgtgtgctg gtgctgtgtg gtgtgtgtgt acaccagtga aaggaatcag gcagtctaag
361 agaactagct atccatccag catgaccact gtaagaatga ggaatgaggc aggacaacag
421 agaactctta attgttcaga gaaccagag aactttgtcc cctccccga aaccctgcag
481 aatgttgagt ctgaaagtat gagctggtta acatgtcagg ggcccatgac ctgtggagga
541 ggaaagatga tgtgacaagc acagaaccgg ctgagccact gtagatgcag ggctcatctc
601 catgaatgtc aaaggaactt aagcaacact gaagctcctc cacttgaaag aagccccgtg
661 gctgcacata tccaccaagg ccaggagaaa gaaaggagag agacacagcc tgagaccgca
721 cagtttcttg ggaagctccc cagtaaggca cgggcacagg tctgggtgcc tgggtctggg
781 aaaagcagag agcactgccg ctgatggaca gagatcctcc atcatcagca gtttggttga
841 gccatgtcag tggcagcagc ggggagaggg tttgcctcca gtctgtcttc cccacagatc
901 aggcgaatag ccttaaaaga agctaagcta acacctcaca tctgggcggc actgcactgg
961 aacttgggac tgagactagt gccatctgtc agataggga ttttgggtgt actgattttt
1021 ctccccgagca cgttctgtga cattggtatc gtatataatt cttcctatga aactgtcatc
1081 cctgagagac tgccaggcaa gggggggaaa gaccctggag ggaaggtgtc ctacatgcta
1141 ttgatgcaag gccaaaagca gctgcttcac ctcgaggtaa agggacacta ccctgagaat
1201 aacttcccag tctacagtta ccacaatggc atcctgaggc aagaaatgcc tctcctctcc
1261 caggactgcc actatgaagg ctacatggaa ggggtgccag gctcctttgt ttctgtcaac
1321 atctgttcag gcctcagggg ggtcttgatt aaagaggaaa catcctatgg cattgagccc
1381 atgctctctt ccaaaaactt tgaacatgtc ctctacacca tggagcatca gcctgtggtc
1441 tctgagcagt tcaactccaa agacagccct ggggacacca gccatccacc aaggagcagg
1501 aagcccgatg acctactggt tctgactgac tgggtgtcac acaccaagta tgtggagatg
1561 tttgtgggtg tcaaccacca gcgggtccag atgtggggca gtaacatcaa cgagacggtc
1621 caggcagtaa tggacatcat tgctctggcc aacagcttca ctagggggat aaacacagag
1681 gtgggtgctg tgggcctgga aatctggaca gagggggacc cgatagaggt cccagtggac
1741 ctgcagacca cactcaggaa tttcaacttc tggagacagg agaaactcgt gggccgggtc
1801 aggcacgatg tggcacactt gatcgctcggg catcgcccag gagagaacga gggccaggcg
1861 tttctccgtg gtgcctgttc ggggtgagtt gcggcgggcg tggaggcctt ccatcatgaa
1921 gatgtcctcc tggtcgcggc tctcatggcc cagagctcgc ggcacaacct gggatccag
1981 cagcaccacc cgacctgcac ctgtggtccc aagcacttct gcctcatggg tgagaagatc
2041 ggtaaggaca gtggcttcag caactgcagc tctgaccact tcctccgttt cctccatgac
2101 cacagagggg cgtgcctgct tgatgagcct gggcgccaga gccgcatgag cagagctgcc
2161 aattgtggga atgggtgtgt ggaggacttg gaggagtgtg actgcggcag tgactgtgac
2221 agtcaccctg gctgttcgcc aacatgtacg cttaaggagg gtgcgcagtg cagtgaggga
2281 ctctgctgct acaactgtac attcaagaag aaaggagctt tatgccgtcc tgctgaggat
2341 gtgtgtgacc ttcccagta ttgtgacggc agtactcagg aatgccctgc aaacagctac
2401 atgcaggatg gcacacagtg tgataggatt tattactgct tggggggttg gtgtaagaac
2461 cctgataaac aatgttcaag gatctatggg tatcctgcaa gatctgcccc tgaggaaatg
2521 tacatttcag ttaatactaa ggcgaaccgg tttggaaact gtggccatcc cactccgct
2581 aacttcagat atgaaacatg ttccgatgag gatgtatttt gtgggaaact ggtgtgtaca
2641 gatgttagat acctgcccac agtcaaacc ctaactcac tcctccaggt tccttatgga
2701 gaggactggg gttggagtat ggatgcctat aacatcacag atgtcccga tgacggagat
2761 gtacagagcg gcaccttctg tgccccaaac aaagtctgca tggagtatat ctgcactggg
2821 cgtgggggtg tccagtacaa ctgtgagcca caggaaatgt gtcacgggaa tggagtgtgc
2881 aacaatttca agcactgtca ctgcgatgct ggcttcgccc ctctgactg tagcagtcca
2941 ggaaatgggg ggagtgtgga cagtggtcct gttggtgaag ccgctgatcg acacttgagt
3001 ctctcttttc tggctgaaga gagtcagat gataaaatgg aggatgaaga ggtaaacctg
3061 aaagtctagg tcttgtgtgt cctatatttt ctgtcgttt tactgtgctg tctaagtctg
3121 atcgcctacc tctggtctga agtacaagaa gtagtatctc caccgagttc atcagagtct
3181 tcgtcttcat catcctggtc agactctgac tctcagtga gttttattta agatcctctc
3241 atggatcatt gctatcgatg tcttgtattt gcagggcaat tttgcctaag tggattttag
3301 ggcagtctgt tcagtgtaat gtgtggtcta tatacttgtg ttgctcatct cagaaacaac
3361 tggaattata tcctgaatga tgttaaggga tctaaatgtt ctaacttgcc ctgtcagctc
3421 ctgttcataa aatagaaggc attttaataa aatataaa (SEQ ID NO:67)

```

FIGURE 37A

58/115

ADAM1 (XM_132370)

MSVAAAGRGFASSLSSPQIRRIALKEAKLTPHIWAALHWNLGLR
LVPSVRVGILVLLIFLPSTFCDIGSVYNSSYETVIPERLPKGKGGKDPGGKVSYMLLMQ
GQKQLLHLEVKGHY PENNFVVS YHNGILRQEMPLLSQDCHYEGYMEGVPGSFVSVNI
CSGLRGVLIKEETSYGIEPMLSSKNFEHVLVTMEHQPVVSCSVTPKDSPGDTSHPPRS
RKPDDLLVLTDWWSHTKYVEMFVVVNHQRFQMWGSNINETVQAVMDIIALANSFTRGI
NTEVVLVGLEIWTGDP I EV PVDLQTTLRNFNFWRQEKLVGRVRHDVAHLIVGHRPGE
NEGQAFLRGACSGEFAAAVEAFHHEDVLLFAALMAHELGHNLGIQHDHPTCTCGPKHF
CLMGEKIGKDSGFSNCSSDHFLRFLHDHRGACLLDEPGRQSRMRRAANCNGNVVEDLE
ECD CGSDCDSHPCCSPTCTLKEGAQCSEGLCCYNCTFKKKGSLCRPAEDVCDLPEYCD
GSTQECFANSYMQDGTQCDRIYYCLGGWCKNPDKQCSRIYGYPARSAPEECYISVNTK
ANRFGNCGHPTSANFRYETCSDEDVFCGKLCTDVRYLPKVKPLHSLQLQVPYGEDWCW
SMDAYNITDVPDDGDVQSGTFCAPNKVCMEYICTGRGVLYNCEPQEMCHGNGVCNNF
KHCHCDAGFAPPDCSSPGNGGSVDSPVGKPADRHLSLSFLAEESPDDKMEDEEVNLK
VMVLVVP I FLVVLLCCLMLIAYLWSEVQEVVSPSSSESSSSSSSWSDSDSQ (SEQ ID NO:68)

FIGURE 37B

59/115

TIM1 (NM_003254)

```

1  aggggcctta  gcgtgccgca  tcgccgagat  ccagcgccca  gagagacacc  agagaaccca
61  ccatggcccc  ctttgagccc  ctggcttctg  gcatcctggt  gttgctgtgg  ctgatagccc
121 ccagcagggc  ctgcacctgt  gtcccacccc  acccacagac  ggcttctgc  aattccgacc
181 tcgtcatcag  ggccaagtgc  gtggggacac  cagaagtcaa  ccagaccacc  ttataccagc
241 gttatgagat  caagatgacc  aagatgtata  aagggttcca  agccttaggg  gatgccgctg
301 acatccgggt  cgtctacacc  cccgccatgg  agagtgtctg  cggatacttc  cacagggtcc
361 acaaccgcag  cgaggagttt  ctcatgtctg  gaaaactgca  ggatggactc  ttgcacatca
421 ctacctgcag  tttcgtggct  ccctggaaca  gcctgagctt  agctcagcgc  cggggcttca
481 ccaagaccta  cactggtggc  tgtgaggaat  gcacagtgtt  tcctgttta  tccatcccc
541 gcaaactgca  gagtggcact  cattgcttgt  ggacggacca  gctcctccaa  ggctctgaaa
601 agggcttcca  gtcccgtcac  cttgcctgcc  tgcctcggga  gccagggctg  tgcacctggc
661 agtccctgcg  gtcccagata  gcctgaatcc  tgcccggagt  ggaactgaag  cctgcacagt
721 gtccaccctg  ttcccactcc  catctttctt  ccggacaatg  aaataaagag  ttaccacca
781 gc (SEQ ID NO:69)

```

FIGURE 38A

TIM1 (NM_003254)

```

APFEPLASGILLLLWLIAPSRACVPPHPQTAFCNSDLVIRA
FVGTPENVNQTTLYQRYEIKMTKMYKGFQALGDAADIRFVYTPAMESVCGYFHRSHNR
EEFLIAGKLQDGLLHITTCFVAPWNSLSLAQRRGFTKTYTVGCCECTVFPCLSI PC
LQSGTHCLWTDQLLQSGEKGFQSRHLACLPREPGLCTWQSLRSQIA (SEQ ID NO:70)

```

FIGURE 38B

60/115

MUC1 (XM_053256)

```

1  cgctccacct ctcaagcagc cagcgccctgc ctgaatctgt tctgccccct cccaccccat
61  ttcaccacca ccatgacacc gggcaccagc tctcctttct tctgctgct gctcctcaca
121 gtgcttacag ttgttacagg ttctgggtcat gcaagctcta cccaggtgg agaaaaggag
181 acttcggcta cccagagaag ttcagtgcc agctctactg agaagaatgc tgtgagtatg
241 accagcagcg tactctccag ccacagcccc gggtcaggct cctccaccac tcagggacag
301 gatgtcactc tggccccggc caccggaacca gcttcagggt cagctgccac ctggggacag
361 gatgtcacct cgggtccagt caccaggcca gccctgggct ccaccacccc gccagcccac
421 gatgtcacct cagccccgga caacaagcgg gcccggggct ccaccgcccc cccagcccac
481 ggtgtcacct cggccccgga caccaggccg gcccggggct ccaccgcccc cccagcccac
541 ggtgtcacct cggccccgga caacaggccc gccttgggct ccaccgcccc tccagtccac
601 aatgtcacct cggcctcagg ctctgcatca ggctcagctt ctactctggt gcacaacggc
661 acctctgcca gggctaccac aacccagcc agcaagagca ctccattctc aattcccagc
721 caccactctg atactcctac cacccttgcc agccatagca ccaagactga tgccagtagc
781 actcaccata gcacggtacc tctctcacc tctccaatc acagcacttc tccccagttg
841 tctactgggg tctctttctt tttcctgtct tttcacattt caaacctcca gtttaattcc
901 tctctggaag atcccagcac cgactactac caagagctgc agagagacat ttctgaaatg
961 tttttgcaga tttataaaca aggggggttt ctgggcctct ccaatattaa gttcaggcca
1021 ggatctgtgg tggtaacaatt gactctggcc ttccgagaag gtaccatcaa tgtccacgac
1081 gtggagacac agttcaatca gtataaaacg gaagcagcct ctcgatataa cctgacgac
1141 tcagacgtca gcgtgagtga tgtgccattt cctttctctg cccagtctgg ggctggggtg
1201 ccaggctggg gcacgcgct gctgggtgct gtctgtgttc tgggtgcgct ggccattgtc
1261 tatctcattg ccttggctgt ctgtcagtc gcgcgaaaga actacgggca gctggacatc
1321 tttccagccc gggataccta ccatcctatg agcaggtacc ccacctacca caccatggg
1381 cgctatgtgc cccctagcag taccgatcgt agcccctatg agaaggtttc tgcaggtaat
1441 ggtggcagca gcctctctta cacaaacca gcagtggcag ccactctctg caacttgtag
1501 gggcacgtcg cccgctgagc tgagtggcca gccagtgcca ttccactcca ctcaggttct
1561 tcagggccag agccccctga ccctgtttg gctgggtgagc tgggagttca ggtgggctgc
1621 tcacagcctc cttcagaggc cccaccaatt tctcggacac ttctcagtg gtggaagctc
1681 atgtggggcc ctgagggctc atgcctggga agtgttggg tgggggctcc caggaggact
1741 ggcccagaga gccctgagat agcgggggatc ctgaactgga ctgaataaaa cgtggtctcc
1801 cactg (SEQ ID NO:71)

```

FIGURE 39A

MUC1 (XM_053256)

```

MTPGTQSPFFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSS
VPSSTEKNAVSM TSSVLSSHSPGSGSSTTQGQDVT LAPATEPASGSAATWGQDVTSVP
VTRPALGSTTPPAHDVTSAPDNKRARGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTS
APDNRPALGSTAPPVHNVTASGSASGSASTLVHNGTSARATTPASKSTPFSIPSHH
SDTPTTLASHSTKTDASSTHHSTVPPLTSSNHSTSPQLSTGVSFFFLSFHISNLQFNS
SLED PSTDYYQELQRDI SEMFLQIYKQGGFLGLSNIKFRPGSVVVQLTLAFREGTINV
HDVETQFNQYKTEAASRYNLTISDVSVDVFPFSAQSGAGVPGWGIALLVLCVLA
LAIVYLI ALAVCQRRKNYGQLDIFPARDTYHPMSEYPTYHTHGRYVPPSSSTRSPYE
KVSAGNGGSSLSYTNPAVAATSANL (SEQ ID NO:72)

```

FIGURE 39B

61/115

CEA (NM_004363)

```

1  ctcagggcag agggaggaag gacagcagac cagacagtca cagcagcctt gacaaaacgt
61  tcttggaact caagctcttc tccacagagg aggacagagc agacagcaga gaccatggag
121 tctccctcgg cccctcccca cagatggtgc atcccctggc agaggctcct gctcacagcc
181 tcaattctaa ccttctggaa cccgcccacc actgccaagc tcaattattga atccacgccc
241 ttcaatgtcg cagaggggaa ggaggtgctt ctacttgtcc acaatctgcc ccagcatctt
301 tttggctaca gctggtacaa aggtgaaaga gtggatggca accgtcaaata tataggatat
361 gtaataggaa ctcaacaagc taccacaggg cccgcataca gtggtcgaga gataatatac
421 cccaatgcat ccctgctgat ccagaacatc atccagaatg acacaggatt ctacacccta
481 caggtcataa agtcagatct tgtgaatgaa gaagcaactg gccagttccg ggtatacccg
541 gagctgcccc agccctccat ctccagcaac aactccaaac ccgtggagga caaggatgct
601 gtggccttca cctgtgaacc tgagactcag gacgcaacct acctgtggtg ggtaaacaat
661 cagagcctcc cggtcagtc caggctgcag ctgtccaatg gcaacaggac cctcactcta
721 ttcaatgtca caagaaatga cacagcaagc taaaaatgtg aaaccagaaa cccagtgagt
781 gccaggcgca gtgattcagt catcctgaat gtctcttatg gcccggtatg cccaccattt
841 tcccccttaa acacatctta cagatcaggg gaaaatctga acctctcctg ccacgcagcc
901 tctaaccacac ctgcacagta ctcttggttt gtcaatggga cttccagca atccacccaa
961 gagctcttta tccccacat cactgtgaat aatagtggat cctatacgtg ccaagcccat
1021 aactcagaca ctggcctcaa taggaccaca gtcacgacga tcacagtcta tgcagagcca
1081 cccaaaccct tcatcaccag caacaactcc aaccccgagg aggatgagga tgctgtagcc
1141 ttaacctgtg aacctgagat tcagaacaca acctacctgt ggtgggtaaa taatcagagc
1201 ctcccggcca gtcccaggct gcagctgtcc aatgacaaca ggacctcac tctactcagt
1261 gtcacaagga atgatgtagg accctatgag tgtggaatcc agaacgaatt aagtgttgac
1321 cacagcgacc cagtcactct gaatgtcttc tatggcccag acgacccccc catttcccc
1381 tcatacacct attaccgtcc aggggtgaac ctgagcctct cctgccatgc agccttaac
1441 ccacctgcac agtattcttg gctgattgat gggaacatcc agcaacacac acaagagctc
1501 tttatctcca acatcactga gaagaacagc ggactctata cctgccaggc caataactca
1561 gccagtggcc acagcaggac tacagtcaag acaatcacag tctctcgcca gctgcccagg
1621 ccctccatct ccagcaacaa ctccaaaccc gtggaggaca aggatgctgt ggccttcacc
1681 tgtgaacctg aggtcagaa cacaacctac ctgtgggtgg taaatgggtc gagcctccca
1741 gtcagtcccc ggctgcagct gtccaatggc aacaggaccc tcaactctatt caatgtcaca
1801 agaaatgacg caagagccta tgtatgtgga atccagaact cagtgaagtgc aaaccgcagt
1861 gaccagtcac cctggatgt cctctatggg ccggacaccc ccacatttc cccccagac
1921 tegtcttacc ttccgggagc gaacctcaac ctctcctgcc actcggcctc taacccatcc
1981 ccgcagtatt cttggcgat caatgggata ccgcagcaac acacacaagt tctctttatc
2041 gccaaaatca cgccaaataa taacgggacc tatgcctgtt ttgtctctaa cttggctact
2101 ggccgcaata attccatagt caagagcatc acagtctctg catctggaac ttctcctggg
2161 ctctcagctg gggccactgt cggcatcatg attggagtgc tgggtggggg tgctctgata
2221 tagcagccct ggtgtagttt ctccatttca ggaagactga cagttgtttt gcttcttctt
2281 taaagcattt gcaacagcta cagtctaaaa ttgcttcttt accaaggata ttacagaaa
2341 agactctgac cagagatcga gaccatccta gccaacatcg tgaaacccca tctctactaa
2401 aaatacaaaa atgagctggg cttgggtggc cgcacctgta gtcccagtta ctcgggaggc
2461 tgaggcagga gaatcgcttg aacccgggag gtggagattg cagtgaagccc agatcgacc
2521 actgcactcc agtctggcaa cagagcaaga ctccatctca aaaagaaaag aaaagaagac
2581 tctgacctgt actcttgaat acaagtttct gataccactg cactgtctga gaatttccaa
2641 aactttaatg aactaactga cagcttcatg aaactgtcca ccaagatcaa gcagagaaaa
2701 taattaattt catgggacta aatgaactaa tgaggattgc tgattcttta aatgtcttgt
2761 ttcccagatt tcaggaaact ttttttcttt taagctatcc actcttacag caatttgata
2821 aaatatactt ttgtgaacaa aaattgagac atttacattt tctccctatg tggtcgctcc
2881 agacttggga aactattcat gaatatattt attgtatggt aatatagtta ttgcacaagt
2941 tcaataaaaa tctgctcttt gtataacaga aaaa (SEQ ID NO: 73)

```

FIGURE 40A

62/115

CEA (NM_004363)

MESPSAPPHRWCIPWQRLLLTASLLTFWNPPPTAKLTIESTPFN
VAEGKEVLLL VHNLPQH LFGYSWYKGERVDGNRQIIGYVIGTQQATPGPAYSGREIIY
PNASLLIQNI IQNDTG FYTLHVIKSDLVNEEATGQFRVYPELPKPSISSNNSKPVEDK
DAVAFTCEPETQDATYLWWVNNQSLPVS PRLQLSNGNRTLTLFNVTRNDTASYKCETQ
NPVSARRSDSVILNVLYGPDAPTISPLNTSYRSGENLNLSCHAASNPPAQYSWFVNGT
FQQSTQELFIPNITVNNSGSYTCQAHNSDTGLNRTTVTTITVYAEPPKPFITSNNSNP
VEDEDAVALTCEPEIQNTTYLWWVNNQSLPVS PRLQLSNDNRTLTL LSVTRNDVGPYE
CGIQNELSVDHSDPVILNVLYGPDDPTISPSYTYRPGVNLSLSCHAASNPPAQYSWL
IDGNIQQHTQELFISNITEKNSGLYTCQANNSASGHSRTTVKTITVSAELPKPSISSN
NSKPVEDKDAVAFTCEPEAQNTTYLWWVNGQSLPVS PRLQLSNGNRTLTLFNVTRNDA
RAYVCGIQNSVSANRSDPVTLDVLYGPDTPII SPPDSSYLSGANLNLSCHSASNPSPO
YSWRINGIPQQHTQVLFIAKITPNNNGTYACFVSNLATGRNNSIVKSITVSASGTSPG
LSAGATVGIMIGVLVGVALI (SEQ ID NO: 74)

FIGURE 40B

63/115

NCA (NM_002483)

```

1  ctccctctaca aagagggtgga cagagaagac agcagagacc atgggacccc cctcagcccc
61  tccctgcaga ttgcatgtcc cctggaagga ggtcctgctc acagcctcac ttctaacctt
121 ctggaaccca cccaccactg ccaagctcac tattgaatcc acgccattca atgtcgcaga
181 ggggaaggag gttctttctac tcgcccacaa cctgccccag aatcgtattg gttacagctg
241 gtacaaaggc gaaagagtgg atggcaacag tctaattgta ggatatgtaa taggaactca
301 acaagctacc ccaggggcccg catacagtgg tcgagagaca atatacccca atgcatccct
361 gctgatccag aacgtcaccc agaatgacac aggattctat accctacaag tcataaagtc
421 agatcttgtg aatgaagaag caaccggaca ttcccatgta taccggagc tgcccaagcc
481 ctccatctcc agcaacaact ccaaccccgt ggaggacaag gatgctgtgg ccttcacctg
541 tgaacctgag gttcagaaca caacctacct gtgggtgggt aatggtcaga gcctcccggt
601 cagtcccagg ctgcagctgt ccaatggcaa catgaccctc actctactca gcgtcaaaag
661 gaacgatgca ggatcctatg aatgtgaaat acagaaccca gcgagtgcca accgcagtga
721 cccagtcacc ctgaatgtcc tctatggccc agatgtcccc accatctccc cctcaaaggc
781 caattaccgt ccagggggaaa atctgaacct ctccctgccac gcagcctcta acccacctgc
841 acagtactct tggtttatca atgggacgtt ccagcaatcc acacaagagc tctttatccc
901 caacatcact gtgaataata gcggatccta tatgtgcaa gcccataact cagccactgg
961 cctcaatagg accacagtca cgatgatcac agtctctgga agtgctcctg tctctcagc
1021 tgtggccacc gtcggcatca cgattggagt gctggccagg gtggctctga tatagcagcc
1081 ctgggtgtatt ttcgatattt caggaagact ggcagattgg accagaccct gaattcttct
1141 agctcctcca atcccatttt atcccatgga accactaaaa acaaggctctg ctctgctcct
1201 gaagccctat atgctggaga tggacaactc aatgaaaatt taaagggaaa accctcaggc
1261 ctgaggtgtg tgccactcag agacttcacc taactagaga cagtcaaact gcaaaccatg
1321 gtgagaaatt gacgacttca cactatggac agcttttccc aagatgtcaa aacaagactc
1381 ctcatcatga taaggctctt accccctttt aatttgtcct tgcttatgcc tgctctttc
1441 gcttggcagg atgatgctgt cattagtatt tcacaagaag tagcttcaga gggtaactta
1501 acagagtgtc agatctatct tgtcaatccc aacgttttac ataaaataag agatccttta
1561 gtgcacccag tgactgacat tagcagcatc tttaacacag ccgtgtgttc aaatgtacag
1621 tggtcctttt cagagttgga cttctagact cacctgttct cactccctgt ttttaattca
1681 cccagccatg caatgccaaa taatagaatt gctccctacc agctgaacag ggaggagtct
1741 gtgcagtttc tgacacttgt tgttgaacat ggctaaatac aatgggtatc gctgagacta
1801 agttgtagaa attaacaaat gtgctgcttg gttaaaatgg ctacactcat ctgactcatt
1861 ctttattcta ttttagttgg tttgtatctt gcctaagggt cgtagtccaa ctcttggtat
1921 taccctccta atagtcatat tagtagtcat actccctggg gtagtgtatt ctctaaaagc
1981 tttaaatgtc tgcatgcagc cagccatcaa atagtgaatg gtctctcttt ggctggaatt
2041 acaaaactca gagaaatgtg tcatcaggag aacatcataa cccatgaagg ataaaagccc
2101 caaatggtgg taactgataa tagcactaat gctttaagat ttggtcacac tctcacctag
2161 gtgagcgcac tgagccagtg gtgctaaatg ctacatactc caactgaaat gttaaggaag
2221 aagatagatc caaaaaaaaa aaaaaaaaaa (SEQ ID NO: 75)

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FIGURE 41

64/115

NCA (NM_002483)

MGPPSAPPCRLHVPWKEVLLTASLLTFWNPPPTAKLTIESTPFN
VAEGKEVLLLAHNLPQNRIGYSWYKGERVDGNSLIVGYVIGTQQATPGPAYSGRETIY
PNASLLIQNVTQNDTGfYTLQVIKSDLVNEEATGQFHVPELPKPSISSNNSNPVEDK
DAVAFTCEPEVQNTTYLWWVNGQSLPVSPRLQLSNGNMTLTLLSVKRNDAGSYECEIQ
NPASANRSDPVTNLNLYGPDVPTISPSKANYRPGENLNLSCHAASNPPAQYSWFINGT
FQQSTQELFIPNITVNNSGsymcQAHNSATGLNRttVTMITVSGSAPVLSAVATVGIT
IGVLARVALI (SEQ ID NO: 76)

FIGURE 41B

65/115

Follistatin (NM_006350)

```

1  gctcctcgcc ccgcgcctgc ccccaggatg gtccgcgcga ggcaccagcc ggggtgggctt
61  tgcctcctgc tgctgctgct ctgccagttc atggaggacc gcagtgccca ggctgggaac
121 tgctggctcc gtcaagcgaa gaacggccgc tggcaggacc tgtacaagac cgaactgagc
181 aaggaggagt gctgcagcac cggccggctg agcacctcgt ggaccgagga ggacgtgaat
241 gacaacacac tcttcaagtg gatgattttc aacgggggcg cccccaactg catcccctgt
301 aaagaaacgt gtgagaacgt ggactgtgga cctgggaaaa aatgccgaat gaacaagaag
361 aacaaacccc gctgcgtctg cgccccggat tgttccaaca tcacctggaa ggggccagtc
421 tgcgggctgg atgggaaaaac ctaccgcaat gaatgtgcac tcctaaaggc aagatgtaaa
481 gagcagccag aactggaagt ccagtagcaa ggcagatgta aaaagacttg tcgggatgtt
541 ttctgtccag gcagctccac atgtgtggtg gaccagacca ataatgccta ctgtgtgacc
601 tgtaatcgga ttgcccaga gcctgcttcc tctgagcaat atctctgtgg gaatgatgga
661 gtcacctact ccagtgcctg ccacctgaga aaggctacct gcctgctggg cagatctatt
721 ggattagcct atgagggaaa gtgtatcaaa gcaaagtcct gtgaagatat ccagtgcact
781 ggtgggaaaa aatgtttatg ggatttcaag gttgggagag gccggtgttc cctctgtgat
841 gagctgtgcc ctgacagtaa gtcggatgag cctgtctgtg ccagtgacaa tgccacttat
901 gccagcgagt gtgcatgaa ggaagctgcc tgctcctcag gtgtgctact ggaagtaaag
961 cactccggat cttgcaactg aatctgcccg taaaacctga gccattgatt cttcagaact
1021 ttctgcagtt ttgacttca tagattatgc tttaaaaaat tttttttaac ttattgcata
1081 acagcagatg ccaaaaacaa aaaaagcatc tactgcaag tcacataaaa atgcaacgct
1141 gtaatatggc tgatcagag ggctttgaaa acatacactg agctgcttct gcgctgttgt
1201 tgtccgtatt taaacaacag ctcccctgta ttccccatc tagccatttc ggaagacacc
1261 gaggaagagg aggaagatga agaccaggac tacagctttc ctatatcttc tattctagag
1321 tggtaaactc tctataagtg ttcagtgttc acatagcctt tgtgcaaaaa aaaaaaaaaa
1381 aaaaaa (SEQ ID NO:77)

```

FIGURE 42A

66/115

Follistatin (NM_006350)

MVRARHQPGGLCLLLLLLCQFMEDRSAQAGNCWLRQAKNGRCQV
LYKTELSKEECCSTGRLSTSWTEEDVNDNTLFWMI FNGGAPNCIPCKETCENVDCGP
GKKCRMNKKNKPRVCAPDCSNITWKGPVCGLDGKTYRNECALLKARCKEQPELEVQY
QGRCKKTCRDVFCPGSSTCVVDQTNNAVCVTCNRICPEPASSEQYLCGNDGVITYSSAC
HLRKATCLLGRSIGLAYEGKCIKAKSCEDIQCTGGKKCLWDFKVGRGRCSLCDELCPD
SKSDEPVCASDNATYASECAMKEAACSSGVLLLEVKHSGSCN (SEQ ID NO: 78)

FIGURE 42B

67/115

Claudin 1 (NM_021101)

```

1 gagcaaccgc agcttctagt atccagactc cagcgccgcc cggggcgcgcg accccaaccc
61 cgaccagag cttctccagc ggcggcgag cgagcagggc tccccgcctt aacttctctc
121 gcggggcccc gccaccttcg ggagtcgggg ttgccacct gcaaactctc cgccttctgc
181 acctgccacc cctgagccag cgcggggccc cgagcgagtc atggccaacg cggggctgca
241 gctgttgggc ttcattctcg ccttctctgg atggatcggc gccatcgta gcaactgcct
301 gccccagtg aggatttact cctatgccgg cgacaacatc gtgaccgccc aggccatgta
361 cgaggggctg tggatgtcct gcgtgtcgca gagcaccggg cagatccagt gcaaagtctt
421 tgactccttg ctgaatctga gcagcacatt gcaagcaacc cgtgccttga tgggtggttg
481 catctctctg ggagtgatag caatctttgt ggccaccgtt ggcataagtg gatatgaagtg
541 cttggaagac gatgaggtgc agaagatgag gatggctgtc attgggggtg cgatatttct
601 tcttgagggt ctggctattt tagttgccag agcatggtat ggcaatagaa tcgttcaaga
661 attctatgac cctatgaccc cagtcaatgc caggtagcaa tttggtcagg ctctcttcac
721 tggctgggct gctgcttctc tctgccttct gggaggtgcc ctactttgct gttcctgtcc
781 ccgaaaaaca acctcttacc caacaccaag gccctatcca aaacctgcac cttccagcgg
841 gaaagactac gtgtgacaca gaggcaaaag gagaaaatca tgttgaaaca aaccgaaaat
901 ggacattgag atactatcat taacattagg acctagaaat tttgggtatt gtaactctgaa
961 gtatggtatt acaaaacaaa caaacaacaa aaaaacccat gtgttaaaat actcagtgct
1021 aaacattggc taatcttatt ttatcttctt tctcaatat aggagggag attttctcat
1081 ttgtattact gcttcccat gagtaatcat actcaattgg gggaggggtg gctccttaaa
1141 tatatataga tatgtatata tacaatgttt tctattaaaa atagacagta aaatactatt
1201 ctcatatagt tgatactagc atacttaaaa tatctctaaa ataggtaaat gtatttaatt
1261 ccatattgat gaagatgttt attggtatat tttcttttct gctatataat acatatgtaa
1321 cagtcaaata tcatttactc ttcttcatta gctttgggtg cctttgccac aagacctagc
1381 ctaatttacc aaggatgaat tctttcaatt cttcatgcgt gcccttttca tatacttatt
1441 ttatttttta ccataatctt atagcacttg catcgttatt aagcccttat ttgttttggtg
1501 tttcattggg ctctatctcc tgaatctaac acatttcata gcctacatt tagtttctaa
1561 agccaagaag aatttattac aaatcagaac tttggaggca aatctttctg catgaccaa
1621 gtgataaatt cctgttgacc ttcccacaca atccctgtac tctgacccat agcactcttg
1681 tttgctttga aaatatttgt ccaattgagt agctgcagtc tgttccccca ggtgttgtaa
1741 cacaacttta ttgattgaat ttttaagcta ctatttcata gttttatata cccctaaact
1801 acctttttgt tccccattcc ttaattgtat tgttttccca agtgtaatta tcatgcgttt
1861 tatatcttcc taataagggtg tggctgtgtt gtctgaacaa agtgctagac tttctggagt
1921 gataatctgg tgacaaatat tctctctgta gctgtaagca agtcaactaa tctttctacc
1981 tcttttttct atctgccaaa ttgagataat gatacttaac cagttagaag aggtagtgtg
2041 aatattaatt agtttatatt actctcattc tttgaacatg aactatgcct atgtagtgtc
2101 tttatttgct cagctggctg agacactgaa gaagtcactg aacaaaacct acacacgtac
2161 cttcatgtga ttcactgcct tctctctctc accagtctat ttccactgaa caaaacctac
2221 acacatacct tcattgtggt cagtgccttc ctctctctac cagtctattt ccactgaaca
2281 aaacctacgc acataccttc atgtggctca gtgccttctc ctctctacca gtctatttcc
2341 attctttcag ctgtgtctga catgtttgtg ctctgttcca ttttaacaac tgctcttact
2401 tttccagtc gtacagaatg ctatttcaat tgagcaagat gatgtaatgg aaagggtgtt
2461 ggcattgggtg tctggagacc tggatttgag tcttggtgct atcaatcacc gtctgtgttt
2521 gagcaaggca tttggctgct gtaagcttat tgcttcatct gtaagcgggtg gtttgtaatt
2581 cctgatcttc ccacctcaca gtgatgttg ggggatccag tgagatagaa tacatgtaag
2641 tgtggttttg taatttaaaa agtgctatac taagggaag aattgaggaa ttaactgcat
2701 acgttttggg gttgcttttc aaatgtttga aaacaaaaaa aatgttaaga aatgggtttc
2761 ttgccttaac cagtctctca agtgatgaga cagtgaagta aaattgagtg cactaaacaa
2821 ataagattct gaggaagtct tatcttctgc agtgagtatg gccgatgct tctgtgggt
2881 aaacagatgt aatgggaaga aataaaagcc tacgtgttg taaatccaac agcaagggtg
2941 atttttgaat cataataact cataagggtgc tatctgttca gtgatgcct cagagctctt
3001 gctgttagct ggcagctgac gctgctagga tagttagttt ggaaatggtg cttcataata
3061 aactacacaa ggaaagtcag ccactgtgtc ttatgaggaa ttggacctaa taaattttag
3121 tgtgccttcc aaacctgaga atatatgctt ttggaagtta aaatttaaat ggcttttgcc
3181 acatacatag atcttcatga tgtgtgagtg taattccatg tggatatcag ttaccaaaca
3241 ttacaaaaaa attttatggc ccaaaatgac caacgaaatt gttacaatag aatttatcca
3301 attttgatct ttttatattc ttctaccaca cctggaaaca gaccaataga cattttgggg
3361 ttttataata ggaatttgta taaagcatta ctctttttca ataaattgtt ttttaattta
3421 aaaaaaggaa aaaaaaaaaa aaaaa (SEQ ID NO: 79)

```

FIGURE 43A

68/115

Claudin 1 (NM_021101)

MANAGLQLLGFILAF LGWIGAIVSTALPQWRIYSYAGDNIVTAQ

AMYEGLWMSCVSQSTGQIQCKVFDSLNLSSSTLQATRALMVVGILLGVIAIFVATVGM

KCMKCLEDDEVQKMRMAVIGGAIFLLAGLAILVATAWYGNRIVQEFYDPMTVPVNARYE

FGQALFTGWAAASLCLLGALLCCSCPRKTTSYPTPRPYPKPAPSSGKD YV (SEQ ID NO:80)

FIGURE 43B

69/115

Claudin 14 (NM_012130)

```

1  gtttgcttca ccttctgcc a ggattgtaag tttcctgagg cctccccagt cctgcggaac
61  tggctccggc tggcacctga ggagcggcgt gaccccgagg gccagggag ctgcccggct
121 ggcctaggca ggcagccgca ccatggccag cacggccgtg cagcttctgg gcttcttgct
181 cagcttcttg ggcattggtg gcacgttgat caccaccatc ctgccgcact ggcggaggac
241 agcgcacgtg ggcaccaaca tcctcacggc cgtgtcctac ctgaaagggc tctggatgga
301 gtgtgtgtgg cacagcacag gcatctacca gtgccagatc taccgatccc tgctggcgct
361 gcccgaagac ctccaggctg ccgcgcgcct catggtcatc tcctgcctgc tctcgggcat
421 agcctgcgcc tgcgccgtca tcgggatgaa gtgcacgcgc tgcgccaaag gcacacccgc
481 caagaccacc tttgccatcc tcggcggcac cctcttcac ctggccggcc tcctgtgcat
541 ggtggccgct tcctggacca ccaacgacgt ggtgcagaac ttctacaacc cgctgctgcc
601 cagcggcatg aagtttgaga ttggccaggc cctgtacctg ggcttcatct cctcgtccct
661 ctcgctcatt ggtggcacc tcgtttgcct gtccctgccag gacgaggcac cctacaggcc
721 ctaccaggcc ccgccaggg ccaccacgac cactgcaaac accgcacctg cctaccagcc
781 accagctgcc tacaaagaca atcgggcccc ctcagtgacc tcggccacgc acagcgggta
841 caggctgaac gactacgtgt gagtccccac agcctgcttc tcccctgggc tgctgtgggc
901 tgggtccccg gcgggactgt caatggaggc aggggttcca gcacaaagtt tacttctggg
961 caatttttgt atccaaggaa ataatgtgaa tgcgaggaaa tgtctttaga gcacagggac
1021 agagggggaa ataagaggag gagaaagctc tctataccaa agactgaaaa aaaaaatcct
1081 gtctgttttt gtatttatta tatatattta tgtgggtgat ttgataacaa gtttaatata
1141 aagtgacttg ggagtttggt cagtggggtt ggtttgtgat ccaggaataa accttgcgga
1201 tgtggctggt tatgaaaaaa aaaaaaaaaa aaa (SEQ ID NO:81)

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FIGURE 44A

70/115

Claudin 14 (NM_012130)

MASTAVQLLGFLLSFLGMVGTLITTLPHWRRTAHVGTNILTAV
SYLKGLWMECVWHSTGIYQCQIYRSLALPQDLQAARALMVISCLLSGIACACAVIGM
KCTRCAKGTPAKTTFAILGGTLFILAGLLCMVAVSWTTNDVVQNFYNPLLPSGMKFEI
GQALYLGFISSSLIGGTLLCLSCQDEAPYRPYQAPPRATTTTANTAPAYQPPAAYK
DNRAPSVTSATHSGYRLNDYV (SEQ ID NO:82)

FIGURE 44B

71/115

Tenascin-R (NM_003285)

```

1  ccttggtttc  cgttgcagat  tcccacaact  ccatgctgtg  tgctgcaggc  tggtcctgaa
61  cccagatctc  tggctgagag  gatgggggca  gatggggaaa  cagtggttct  gaagaacatg
121  ctcatgtggc  tcaacctgat  ccttctgggc  tccatgatca  agccttcaga  gtgtcagctg
181  gaggtcacca  cagaaagggt  ccagagacag  tcagtggagg  aggagggagg  cattgccaac
241  tacaacacgt  ccagcaaaga  gcagcctgtg  gtcttcaacc  acgtgtacaa  cattaacgtg
301  cccttggaca  acctctgctc  ctcagggcta  gaggcctctg  ctgagcagga  ggtgagtga
361  gaagacgaga  ctctggcaga  gtacatgggc  cagacctcag  accacgagag  ccaggtcacc
421  ttacacaca  ggatcaactt  ccccaaaaag  gcctgtccat  gtgccagttc  agcccagggtg
481  ctgcaggagc  tgctgagccg  gatcgagatg  ctggagaggg  aggtgtcggg  gctgcgagac
541  cagtgcacag  ccaactgctg  ccaagaaagt  gctgccacag  gacaactgga  ctatatccct
601  cactgcagtg  gccacggcaa  ctttagcttt  gagtctctgt  gctgcatctg  caacgaaggc
661  tggtttggca  agaattgtct  ggagccctac  tgcccgtggg  gttgtctcag  ccgggggggtg
721  tgtgtggatg  gccagtgcac  ctgtgacagc  gaatacagcg  gggatgactg  ttccgaactc
781  cggtgcccaa  cagactgcag  ctcccggggg  ctctgcgtgg  acggggagtg  tgtctgtgaa
841  gagccctaca  ctggcgagga  ctgcagggaa  ctgagggtgc  ctggggactg  ttccggggaag
901  gggagatgtg  ccaacgggtc  ctgtttatgc  gaggagggct  acgttgggtg  ggactgcggc
961  cagcggcagt  gtctgaatgc  ctgcagtggg  cgaggacaat  gtgaggaggg  gtctgcgtc
1021  tgtgaagagg  gctaccaggg  cctgactggc  tcagcagttg  cccctccaga  ggacttgcca
1081  gtggctggta  tcagcgacag  gtccattgag  ctggaatggg  acgggcccag  ggcagtgacg
1141  gaatatgtga  tctcttacca  gccgacggcc  ctggggggcc  tccagctcca  gcagcgggtg
1201  cctggagatt  ggagtgggtg  caccatcacg  gagctggagc  caggtctcac  ctacaacatc
1261  agcgtctacg  ctgtcattag  caacatcctc  agccttccca  tcaactgcaa  ggtggccacc
1321  catctctcca  ctccctcaag  gctacaattt  aagacgatca  cagagaccac  cgtggaggtg
1381  cagtgggagc  ccttctcatt  ttccctcgat  ggggtgggaa  tcagcttcat  tccaaagaac
1441  aatgaagggg  gagtgattgc  tcagggtccc  agcgatgtta  cgtcctttaa  ccagacagga
1501  ctaagcctg  gggaggaata  cattgtcaat  gtgggtggct  tgaaagaaca  ggcccgcagc
1561  cccctacct  cggccagcgt  ctccacagtc  attgacggcc  ccacgcagat  cctggttcgc
1621  gatgtctcgg  acaccgtggc  ttttgtggag  tggattcccc  ctcgagccaa  agtcgatttc
1681  attcttttga  aatatggcct  ggtgggcggg  gaaggtggga  ggaccacctt  ccggctgcag
1741  cctcccctga  gccaaatact  agtgcaggcc  ctgcggcctg  gctcccgata  cgagggtgca
1801  gtcagtgccg  tccgagggac  caacgagagc  gattctgcca  ccactcagtt  cacaacagag
1861  atcgatgccc  ccaagaactt  gcgagttggt  tctcgcacag  caaccagcct  tgacctcgag
1921  tgggataaca  gtgaagccga  agttcaggag  tacaaggttg  tgtacagcac  cctggcgggt
1981  gagcaatata  atgaggtact  ggtccccagg  ggcatgggtc  caaccaccag  ggccaccctg
2041  acagatctgg  tacctggcac  tgagtatgga  gttggaatat  ctgccgtcat  gaaactcacag
2101  caaagcgtgc  cagccaccat  gaatgccagg  actgaacttg  acagtcoccg  agacctcatg
2161  gtgacagcct  cctcggagac  ctccatctcc  ctcatctgga  ccaaggccag  tggccccatt
2221  gaccactacc  gaattacctt  taccctatcc  tctgggattg  cctcagaagt  caccgtacct
2281  aaggacagga  cctcatacac  actaacagat  ctgagacctg  gggcagagta  catcatttcc
2341  gtcactgctg  agaggggtcg  gcagcagagc  ttggagtcca  ctgtggatgc  tttcacaggc
2401  ttccgtccca  tctctcatct  gcacttttct  catgtgacct  cctccagtgt  gaacatcact
2461  tggagtgate  catctcccc  agcagacaga  ctattctta  actacagccc  cagggatgag
2521  gaggaagaga  tgatggaggt  ctccctggat  gccaccaaga  ggcatgctgt  cctgatgggc
2581  ctgcaaccag  ccacagagta  tattgtgaac  cttgtggctg  tccatggcac  agtgacctct
2641  gagcccatgt  tgggtcccat  caccacagga  attgatcccc  caaaagacat  cacaattagc
2701  aatgtgacca  aggactcagt  gatggtctcc  tggagccctc  ctgttgcatc  tttcgattac
2761  taccgagtat  catatcgacc  cacccaagtg  ggacgactag  acagctcagt  ggtgcccac
2821  actgtgacag  aattcaccat  caccagactg  aaccagcta  ccgaatacga  aatcagcctc
2881  aacagcgtgc  ggggcaggga  ggaaagcgag  cgcactctga  ctcttgtgca  cacagccatg
2941  gacaaccctg  tggatctgat  tgctaccaat  atcactccaa  cagaagccct  gctgcagtgg
3001  aaggcaccag  tgggtgaggt  ggagaactac  gtcattgttc  ttacacactt  tgcagtgcgt
3061  ggagagacca  tccttggtga  cggagtcatg  gaggaatttc  ggcttggtga  cctgcttctc
3121  agcaccact  atactgccac  ctggtatgcc  accaatggac  ctctcaccag  tggcaccatc
3181  agcaccact  tttctactct  cctggacctc  ccggcaaacc  tgacagccag  tgaagtacc
3241  agacaaagtg  ccctgatctc  ctggcagcct  cccagggcag  agattgaaaa  ttatgtcttg
3301  acctacaaat  ccaccgacgg  aagccgcaag  gagctgattg  tggatgcaga  agacacctgg
3361  attcgactgg  agggcctgtt  ggagaacaca  gactacacgg  tgctcctgca  ggcagcacag

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FIGURE 45A

72/115

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3421 gacaccacgt ggagcagcat cacctccacc gctttcacca caggaggccg ggtgttccct
3481 catccccaag actgtgcca gcatttgatg aatggagaca ctttgagtgg ggtttaccct
3541 atcttctca atggggagct gagccagaaa ttacaagtgt actgtgatat gaccaccgac
3601 gggggcggct ggattgtatt ccagaggcgg cagaatggcc aaactgattt tttccgaaa
3661 tgggctgatt accgtgttgg cttcggaac gtggaggatg agttctggct ggggctggac
3721 aatatacaca ggatcacatc ccagggccgc tatgagctgc gcgtggacat gcgggatggc
3781 caggaggccg ccttcgcctc ctacgacagg ttctctgtcg aggacagcag aaacctgtac
3841 aaactccgca taggaagcta caacggcact gcgggggact ccctcagcta tcatcaagga
3901 cgccctttct ccacagagga tagagacaat gatgttgag tgactaactg tgccatgtcg
3961 tacaagggag catggtggtg taagaactgc caccggacca acctcaatgg gaagtacggg
4021 gagtccaggc acagtcaggg catcaactgg taccattgga aaggccatga gttctccatc
4081 ccctttgtgg aaatgaagat gcgcccctac aaccaccgtc tcatggcagg gagaaaacgg
4141 cagtccttac agttctgagc agtgggcggc tgcaagccaa ccaatatatt ctgtcatttg
4201 tttgtatttt ataatatgaa acaagggggg agggtaatat caatgtgttt tgcaacatat
4261 taagagtatg tgaaggaagc agggatgtcg caggaatccg ctggctaaca tctgctcttg
4321 gtttctgctg ccctggagcc tgaccctcag tctccattct ccctcctacc caggcctcct
4381 caaccttcac ctcccttccc accaaggagg agaagtagga agttttctta aaggccaat
4441 tcaaagccaa gtcgtggggt gcagattgtt atggtgacag gcacacacat ttttctacc
4501 ttcttctgag atgtcctctg ccttcagggt atttgtgatt ttgtcacagc ctgacatggc
4561 caggttctca cactggcca gagaaaagag cctcagcaag agagttttgc caacaattcc
4621 ccttaaaagg aaacagatca actacaccgc atcccaacaa ccagggttct tttccttcc
4681 tccttccttc ctcccttctc tcttctctgc cttccc (SEQ ID NO:83)

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FIGURE 45B

73/115

Tenascin-R (NM_003285)

MGADGETVVLKNMLIGVNLILLGSMIKPSECQLEVTTERTVQRQS
VEEEGGIANYNNTSSKEQPVVFNVHVNINVPLDNLCSGLEASAEQVSAEDELAEYM
GQTSDHESQVTFTHRINFPPKACPCASSAQVLQELLSRIEMLEREVSVLRDQCNANCC
QESAATGQLDYI PHCSGHGNFSFESCGCICNEGWF GKNCSEPYCPLGCSSRGVCVDGQ
CICDSEYSGDDCSELRCPTDCSSRGLCVDGECVCEEPYTGEDCRELRCPGDCSGKGRC
ANGTCLCEEGYVGEDCGQRQCLNACSGRGQCEEGLCVCEEGYQGPDCSAVAPPEDLRV
AGISDRSIELEWDGPMVTEYVISYQPTALGGLQLQQRVPGDWSGVTITELEPGLTYN
ISVYAVISNILSLPITAKVATHLSTPQGLQFKTITETTVEVQWEPFSFSFDGWEISFI
PKNNEGGVIAQVPSDVTSTFNTGLKPGEEYIVNVVALKEQARSPTSASVSTVIDGPT
QILVRDVSDTVAFVEWIPPRAKVDFILLKYGLVGGEGGRTTFRQLPPLSQYSVQALRP
GSRYEVSVSAVRGTNESDSATTQFTTEIDAPKNLRVGSRTATSLDLEWDNSEAEVQEY
KVVYSTLAGEQYHEVLVPRGIGPTTRATLTDLVPGTEYGVGISAVMNSQQSVPATMNA
RTELDSPRDLMTASSETSISLIWTKASGPIDHYRITFTPSSGIASEVTVPKDRTSYT
LTDLEPGA EYIIISVTAERGRQQSLESTVDAFTGFRPISHLHF SHVTSSSVNITWSDPS
PPADRLILNYSRDEEEEMMEVSLDATKRHAVLMGLQPATEYIVNLVAVHGTVTSEPI
VGSITTGIDPPKDITISNVTKDSVMVSWSPPVASF DYRVSYRPTQVGRLDSSVVPNT
VTEFTITRLNPATEYEISLNSVRGREESERIC TLVHTAMDNPNVDLIATNITPTEALLQ
WKAPVGEVENYVIVLTHFAVAGETILVDGVSEEFRLVDLLPSTHYTATMYATNGPLTS
GTISTNFSSTLLDPPANLTASEVTRQSALISWQPPRAE IENYVLTYKSTDGSRKELIVD
AEDTWIRLEGLLENTDYTVLLQAAQD TTWSSITSTAFTTGGRVFPH PQDCAQHLMNGD
TLSGVYPIFLNGELS QKLQVYCDMTTDGGGWIVFQRRQNGQTDFFRKWADYRVGFGNV
EDEFWLGLDNIHRITSQGRYELRVDMRDGEAA FASYDRFSVEDSRNLYKLRIGSYNG
TAGDSL SYHQGRPFSTEDRDNDVAVTNCAMSYKGAWWYKNCHRTNLNGKYGESRHSQG
INWYHWKGHEFSIPFVEMKMRPYNHRLMAGRKRQSLQF (SEQ ID NO:84)

FIGURE 45C

74/115

CAD3 (NM-001793)

```

1 aaaggggcaa gagctgagcg gaacaccggc ccgcccgcgc ggcagctgct tcacccctct
61 ctctgcagcc atggggctcc ctctcgctct ctctccttc tccaggtttg
121 ctggctgcag tgcgcggcct ccgagccgtg ccgggcggtc ttcaggaggg ctgaagtga
181 cttggaggcg ggaggcgcgg agcaggagcc cggccaggcg ctggggaaag tattcatggg
241 ctgccctggg caagagccag ctctgtttag cactgataat gatgacttca ctgtgcggaa
301 tggcgagaca gtccaggaaa gaaggtcact gaaggaaagg aatccattga agatcttccc
361 atccaaacgt atcttacgaa gacacaagag agattgggtg gttgctccaa tatctgtccc
421 tgaaaatggc aagggtccct tccccagag actgaatcag ctcaagtcta ataaagatag
481 agacaccaag attttctaca gcatcacggg gccgggggca gacagccccc ctgagggtgt
541 ctctcgtgta gagaaggaga caggctggtt gttgttgaat aagccactgg accgggagga
601 gattgccaag tatgagctct ttggccacgc tgtgtcagag aatggtgcc tagtggagga
661 ccccatgaac atctccatca tcgtgaccga ccagaatgac cacaagccca agtttaccba
721 ggacaccttc cgagggagtg tcttagaggg agtcctacca ggtacttctg tgatgcaggt
781 gacagccacg gatgaggatg atgccatcta cacctacaat ggggtggttg cttactccat
841 ccatagccaa gaaccaaagg acccacacga cctcatgttc accattcacc ggagcacagg
901 caccatcagc gtcatctcca gtggcctgga ccgggaaaaa gtccctgagt acacactgac
961 catccaggcc acagacatgg atggggacgg ctccaccacc acggcagtgg cagtagtgga
1021 gatccttgat gccaatgaca atgctcccat gtttgacccc cagaagtacg aggcccattg
1081 gcctgagaat gcagtgggccc atgagggtga gaggctgacg gtcactgatc tggacgcccc
1141 caactcacca gcgtggcgtg ccacctacct tatcatgggc ggtgacgacg gggaccattt
1201 taccatcacc acccacctg agagcaacca gggcatcctg acaaccagga agggtttgga
1261 ttttgaggcc aaaaaccagc acacctgta cgttgaagtg accaacgagg ccccttttgt
1321 gctgaagctc ccaacctcca cagccaccat agtgggtccac gtggaggatg tgaatgagga
1381 acctgtgttt gtcccaccct ccaaagtcgt tgagggtccag gagggtatcc cactgggga
1441 gcctgtgtgt gtctacactg cagaagaccc tgacaaggag aatcaaaaga tcagctaccg
1501 catcctgaga gaccagcag ggtggctagc catggacca gacagtgggc aggtcacagc
1561 tgtgggcacc ctgcaccgtg aggatgagca gtttgtgagg aacaacatct atgaagtcat
1621 ggtcttgccc atggacaatg gaagccctcc caccactggc acgggaaccc tttgtgtaac
1681 actgattgat gtcaatgacc atggcccagt cctgagccc cgtcagatca ccatctgcaa
1741 ccaaagccct gtgcgccagg tgctgaacat cacggacaag gacctgtctc cccacacctc
1801 ccctttccag gccagctca cagatgactc agacatctac tggacggcag aggtcaacga
1861 ggaaggtgac acagtgggtc tgtccctgaa gaagtctctg aagcaggata catatgacgt
1921 gcacctttct ctgtctgacc atggcaacaa agagcagctg acggtgatca gggccactgt
1981 gtgcgactgc catggccatg tcgaaacctg ccctggaccc tgggaaggag gtttcatcct
2041 ccctgtgctg ggggctgtcc tggctctgct gttcctcctg ctggtgctgc ttttgttggt
2101 gagaaagaag cggaagatca aggagcccc ctaactcca gaagatgaca cccgtgacaa
2161 cgtcttctac tatggcgaag aggggggttg cgaaggagac caggactatg acatcaccca
2221 gctccaccga ggtctggagg ccaggccgga ggtggttctc cgcaatgacg tggcaccaac
2281 catcatcccg acacccatgt accgtcctcg gccagccaac ccagatgaaa tcggcaactt
2341 tataattgag aacctgaagg cggctaacac agaccccaca gccccgcctt acgacaccct
2401 cttggtgttc gactatgagg gcagcggctc cgacgccgcy tccctgagct cctcacctc
2461 ctccgcctcc gaccaagacc aagattacga ttatctgaac gagtggggca gccgcttcaa
2521 gaagctggca gacatgtacg gtggcgggga ggacgactag gcggcctgcc tgcagggtg
2581 gggaccaaac gtcaggccac agagcatctc caaggggtct cagttcccc ttcagctgag
2641 gacttcggag cttgtcagga agtggccgta gcaacttggc ggagacaggc tatgagtctg
2701 acgttagagt ggttgcttcc tttagccttc aggatggagg aatgtgggca gtttgacttc
2761 agcactgaaa acctctccac ctgggcccagg gttgcctcag aggccaaagt tccagaagcc
2821 tcttacctgc cgtaaaatgc tcaacctgt gtctggggcc tgggcctgct gtgactgacc
2881 tacagtggac tttctctctg gaatggaacc ttcttaggcc tcttggtgca acttaatttt
2941 tttttttaat gctatcttca aaacgttaga gaaagtctt caaaagtgca gccagagct
3001 gctgggcccc ctggccgtcc tgcatttctg gtttccagac cccaatgcct cccattcgga
3061 tggatctctg cgtttttata ctgagtgtgc ctaggttgcc ccttattttt tattttccct
3121 gttgcgttgc tatagatgaa gggtgaggac aatcgtgtat atgtactaga acttttttat
3181 taaagaaact tttcccagaa aaaaa (SEQ ID NO:85)

```

FIGURE 46A

75/115

CAD3 (NM-001793)

MGLPRGPLASLLLLQVCWLQCAASEPCRAVFREAEVTLEAGGAE
QEPGQALGKVMGCPGQEPALFSTDNDFFTVRNGETVQERRSLKERNPLKIFPSKRIL
RRHKRDWVAPISVPENGKGPFQRLNQLKSNKDRDTKIFYSTGPGADSPPEGVFAV
EKETGWLLLLNKPLDREEIAKYELFGHAVSENGASVEDPMNISIIIVTDQNDHKPKFTQD
TFRGSVLEGVLPGTSVMQVTATDEDDAIYTYNGVVAYSISHSQEPKDPHDLMTIHRST
GTISVISSGLDREKVPEYTLTIQATMDGDGSTTTAVAVVEILDANDNAPMFDPPQKYE
AHVPENAVGHEVQRLTVTDLDAPNSPAWRATYILIMGDDGDHFTITTHPESNQGILTT
RKGLDFEAKNQHTLYVEVTNEAPFVLKLPTSTATIVVHVEDVNEAPVFVPPSKVVEVQ
EGIPTGEPVCVYTAEDPDKENQKISYRILRDPAGWLAMPDSGQVTAVGTLDREDEQF
VRNNIYEVMLAMDNGSPPTTGTGTLLLLTLIDVNDHGPVPEPRQITICNQSPVRQVLN
ITDKDLSPHTSPFQAQLTDDSDIYWTAEVNEEGDTVVLSTLKKFLKQDTYDVHLSLSDH
GNKEQLTVIRATVCDCHGHVETCPGPWKGGFILPVLGAVLALLFLLLVLVVLLVLRKKRK
IKEPLLLPEDDTRDNVFIYGEEGGGEEDQDYDITQLHRGLEARPEVVLNRNDVAPTIIIP
TPMYRPRPANPDEIGNFIIENLKAANTDPTAPPYDTLLVFDYEGSGSDAASLSSLTSS
ASDQDQDYDYLNEWGSRFKKLADMYGGGEDD (SEQ ID NO:86)

FIGURE 46B

76/115

CONT (NM_001843)

```

1 gctgtgccgc accgaggcga gcaggagcag ggaacagggtg tttaaaatta tccaactgcc
61 atagagctaa attctttttt ggaaaattga accgaacttc tactgaatac aagatgaaaa
121 tgtggttgct ggtcagtcac cttgtgataa tatctattac tacctgttta gcagagttaa
181 catggtatag aagatatggt catggagttt ctgaggaaga caaaggattt ggaccaattt
241 ttgaagagca gccaatcaat accattttatc cagaggaatc actggaagga aaagtctcac
301 tcaactgtag ggcacgagcc agccctttcc cggtttacia atggagaatg aataatgggg
361 acgttgatct cacaagtgat cgatacagta tggtaggagg aaaccttggt atcaacaacc
421 ctgacaaaca gaaagatgct ggaatatact actgttttagc atctaataac tacgggatgg
481 tcagaagcac tgaagcaacc ctgagctttg gatattctga tcccttccca cctgaggaac
541 gtcctgaggt cagagtaaaa gaagggaaag gaatggtgct tctctgtgac cccccatacc
601 attttccaga tgatcttagc tatcgctggc ttctaaatga atttcctgta tttatcacia
661 tggataaacg gcgatttggt tctcagacaa atggcaatct ctacattgca aatgttgagg
721 cttccgacaa aggcaattat tctgctttg tttccagtcc ttctattaca aagagcgtgt
781 tcagcaaatt catccactc attccaatac ctgaacgaac aacaaaacca tatcctgctg
841 atattgtagt tcagttcaag gatgtatatg cattgatggg ccaaaatgtg acctagaat
901 gttttgcact tggaaatcct gttccggata tccgatggcg gaaggttcta gaaccaatgc
961 aaagcattgc tgagattagc acctctgggg actgttctaa gatcttcaat atcagctag
1021 aagatgaagg catctatgaa tgtgaggctg agaacattag aggaaaggat aaacatcaag
1081 caagaattta tgttcaagca ttccctgagt gggtagaaca catcaatgac acagaggtgg
1141 acataggcag tgatctctac tggccttggt tggccacagg aaagcccatc cctacaatcc
1201 gatggttgaa aaatggatat gcgtatcata aaggggaatt aagactgtat gatgtgactt
1261 ttgaaaatgc cggaatgtat cagtgcatac ctgaaaacac atatggagcc atttatgcaa
1321 atgctgagtt gaagatcttg gcgttggctc caacttttga aatgaatcct atgaagaaaa
1381 agatcctggc tgctaaaggt ggaaggggtg taattgaatg caaacctaaa gctgcaccga
1441 aaccaaagtt ttcattggagt aaagggacag agtggcttgt caatagcagc agaatactca
1501 tttgggaaga tggtagcttg gaaatcaaca acattacaag gaatgtgga ggtatctata
1561 catgctttgc agaaaataac agagggaaag ctaatagcac tggaaacctt gttatcacag
1621 atcctacgcg aattatattg gccccaatat atgccgatat cacagttgga gaaaacgcca
1681 ccatgcagtg tgcctgctcc tttgatcctg ccttggatct cacatttggt tggctcctca
1741 atggctatgt gatcgatttt aacaaagaga atattcacta ccagaggaat tttatgctgg
1801 attccaatgg ggaattacta atccgaaatg cgcagctgaa acatgctgga agatacacat
1861 gcaactgcca gacaattgtg gacaattctt cagcttcagc tgaccttgta gtgagaggcc
1921 ctccaggccc tccagggtgg ctgagaatag aagacattag agccacttct gtggcactta
1981 cttggagccg tgggttcagac aatcatagtc ctatttctaa atacactata gagaccaaga
2041 ctattctttc agatgactgg aaagatgcaa agacagatcc cccaattatt gaaggaaata
2101 tggaggcagc aagagcagtg gacttaatcc catggatgga gtatgaattc cgcgtggtag
2161 caaccaatac actgggtaga ggagagccca gtataccatc taacagaatt aaaacagacg
2221 gtgctgcacc aaatgtggct ccttcagatg taggaggtgg aggtggaaga aacagagagc
2281 tgaccataac atgggcgcct ttgtcaagag aataccacta tggcaacaat tttggttaca
2341 tagtggcatt taagccattt gatggagaag aatggaaaaa agtcacagtt actaatcctg
2401 atactggccg atatgtccat aaagatgaaa ccatgagccc ttccactgca tttcaagtta
2461 aagtcaaggc cttcaacaac aaaggagatg gaccttacag cctagtagca gtcattaatt
2521 cagcacaaga cgctcccagt gaagcccaa tagaaagtc tgtatactct tttatctctt
2581 ctgagatatac tgttcattgg gaacatgttt tagaaaaaat agtggaaagc tatcagattc
2641 ggtattgggc tgcccatgac aaagaagaag ctgcaaacag agttcaagtc accagccaag
2701 agtactcggc caggctcgag aaccttctgc cagacacca gtattttata gaagtggggg
2761 cctgcaatag tgcagggtgt ggacctcaa gtgacatgat tgaggctttc accaagaaag
2821 cacctcctag ccagcctcca aggatcatca gttcagtaag gtctggttca cgctatataa
2881 tcacctggga tcatgtcggt gcaactatcaa atgaatctac agtgacggga tataaggtac
2941 tctacagacc tgatggccag catgatggca agctgtattc aactcaciaa cactccatag
3001 aagtcccaat ccccagagat ggagaatacg ttgtggaggt tcgcgcgcac agtgaatggg
3061 gagatggagt ggtgtctcaa gtcaaaaattt caggtgcacc caccctatcc ccaagtcttc
3121 tgcgcttact gctgcctgcc tttggcatcc ttgtctactt ggaattctga atgtgttggtg
3181 acagctgctg tttccatccc agctcagaag acacccttca accctgggat gaccacaatt
3241 ccttccaatt tctgcggctc catcctaagc caaataaatt atactttaac aaactattca
3301 actgatttac aacacacatg atgactgagg cattcgggaa ccccttcac caaaagaata
3361 aacttttaaa tggatataaa tgatttttaa ctgcttcaa tatgccttat aaaccactta
3421 acctgat (SEQ ID NO:87)

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FIGURE 47A

77/115

CONT (NM_001843)

MKMWLLVSHLVIISITTCLAEFTWYRRYGHGVSEEDKGFPIPE
EQPINTIYPEESLEGKVSLNCRARASPPFVYKWRMNNGDVDLTSDRYSMVGGNLVINN
PDKQKDAGIYYCLASNNGMVRSTEATLSFGYLDPPPEERPEVRVKEGKGMVLLCDP
PYHFPDDL SYRWLLNEFPVFITMDKRRFVSQTNGNLYIANVEASDKGNYSFCVSSPSI
TKSVFSKFIPLIPIPERTTKPYPADIVVQFKDVYALMGQNVTLCEFALGNPVPDIRWR
KVLEPMPSTAEISTSGAVLKIFNIQLEDEGIYECEAENIRGDKKHQARIYVQAFPEWV
EHINDTEVDIGSDLYWPCVATGKPIPTIRWLKNGYAYHKGELRLYDVT FENAGMYQCI
AENTYGAIYANAELKILALAPTFEMNPMKKKILAAKGGRVIECKPKAAPKPKFSWSK
GTEWLVNSSRILIWEDGSLEINNITRNDGGIYTCFAENNRKANSTGTLVITDPTRII
LAPINADITVGENATMQCAASFDPALDLTFVWSFNGYVIDFNKENIHYQRNFMLDSNG
ELLIRNAQLKHAGRYTCTAQTIVDNSSASADLVVRGPPGPPGGLRIEDIRATSVALTW
SRGSDNHSPISKYTIQTKTILSDDWKDAKTDPPII EGNMEAARAVDLIPWMEYEFRVV
ATNTLGRGEP SIPS NRIKTDGAAPNVAPSDVGGGGGRNRELTITWAPLSREYHYGNF
GYIVAFKPF DGEWKKVTVTNPD TGRYVHKDETMS PSTAFQVKVKAFNNKGDGPYSLV
AVINSAQDAPSEAPTEVGKVLSSSEISVHWEHVLEKIVESYQIRYWAHDKEEAANR
VQVTSQEYSARLENLLPDTQYFIEVGACNSAGCGPPSDMIEAFTKKAPPSQPPRIISS
VRSGSRYIITWDHVVALSNESTVTGYKVL YRPD GQHDKLYSTHKHSIEVPIPRDGEY
VVEVRAHSDGGDGVVSQVKISGAPTLSPSLLGLLLPAFGILVYLEF (SEQ ID NO:88)

FIGURE 47B

78/115

Osteopontin (NM_000582)

```

1  ctccctgtgt  tgggtggagga  tgtctgcagc  agcattttaa  ttctgggagg  gcttggttgt
61  cagcagcagc  aggaggaggc  agagcacagc  atcgtcggga  ccagactcgt  ctcaggccag
121 ttgcagcctt  ctgagccaaa  cgccgaccaa  ggaaaactca  ctaccatgag  aattgcagtg
181 atttgctttt  gcctcctagg  catcacctgt  gccataccag  ttaaacaggc  tgattctgga
241 agttctgagg  aaaagcagct  ttacaacaaa  taccagatg  ctgtggccac  atggctaaac
301 cctgacccat  ctgagaagca  gaatctccta  gccccacaga  cccttccaag  taagtccaac
361 gaaagccatg  accacatgga  tgatatggat  gatgaagatg  atgatgacca  tgtggacagc
421 caggactcca  ttgactcgaa  cgactctgat  gatgtagatg  aactgatga  ttctcaccag
481 tctgatgagt  ctccaccatt  tgatgaatct  gatgaactgg  tcaactgatt  tcccacggac
541 ctgccagcaa  ccgaagtttt  cactccagtt  gtccccacag  tagacacata  tgatggccga
601 ggtgatagtg  tggtttatgg  actgagggtc  aaatctaaga  agtttcgcag  acctgacatc
661 cagtaccctg  atgctacaga  cgaggacatc  acctcacaca  tggaaagcga  ggagttgaat
721 ggtgcataca  aggccatccc  cgttgcccag  gacctgaacg  cgccttctga  ttgggacagc
781 cgtgggaagg  acagttatga  aacgagtcag  ctggatgacc  agagtgtctg  aaccacagc
841 cacaagcagt  ccagattata  taagcggaaa  gccaatgatg  agagcaatga  gcattccgat
901 gtgattgata  gtcaggaact  ttccaaagtc  agccgtgaat  tccacagcca  tgaatttcac
961 agccatgaag  atatgctggg  tgtagacccc  aaaagtaagg  aagaagataa  acacctgaaa
1021 tttcgtattt  ctcatgaatt  agatagtgca  tcttctgagg  tcaattaaaa  ggagaaaaaa
1081 tacaattttt  cactttgcat  ttagtcaaaa  gaaaaaatgc  tttatagcaa  aatgaaagag
1141 aacatgaaat  gcttctttct  cagtttattg  gttgaatgtg  tatctatttg  agtctggaaa
1201 taactaatgt  gtttgataat  tagtttagtt  tgtggcttca  tggaaactcc  ctgtaaacta
1261 aaagcttcag  ggttatgtct  atgttcattc  tatagaagaa  atgcaaacta  tcaactgtatt
1321 ttaatatatt  ttattctctc  atgaatagaa  atttatgtag  aagcaaacaa  aatactttta
1381 cccacttaaa  aagagaatat  aacattttat  gtcactataa  tcttttgttt  ttttaagttag
1441 tgtatatatt  gttgtgatta  tctttttgtg  gtgtgaataa  atcttttatc  ttgaatgtaa
1501 taagaatttg  gtggtgtcaa  ttgcttattt  gttttcccac  gggtgtccag  caattaataa
1561 aacataacct  tttttactgc  ctaaaaaaaa  aaaaaaaaaa  aaaaaaaaaa  aaaaaa (SEQ
ID NO:89)

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FIGURE 48A

79/115

Osteopontin (NM_000582)

MRIAVICFLLGITCAIPVKQADSGSSEEKQLYNKYPDAVATWL
NPDPSQKQNLLAPQTLPSKSNESHDMDDMDEDDDDHVDSQDSIDSNDSDDVDDTDD
SHQSDESHHSDESDELVTDFPTDLPATEVFTPVVPTVDITYDGRGDSVVYGLRSKSKKF
RRPDIQYPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDD
QSAETHSHKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPK
SKEEDKHLKFRISHELDSASSEVN (SEQ ID NO:90)

FIGURE 48B

80/115

Galectin 8 (NM_006499)

```

1  tggacttgga tccgagggcag acgaggaagc tgagaaaacc ctggcggttga ccccggtggac
61  ctgggcgccc cgggaagggtc cagcgcttgg tccaggcagg cggggatgtg cggtgaccac
121 cctggtcctg aaaagtccag ccccgaaatct ccctccctcc tagacctgga ggcttggaaac
181 agccagccgc ccacggacgc cagagccggg aaccctgacg gcaacttagct gctgacaaac
241 aacctgctcc gtggacgcct gaaacaccag tctttggggc cagtgcctca gtttcaatcc
301 aggtaacctt taaatgaaac ttgcctaaaa tcttaggtca tacacagaag agactccaat
361 cgacaagaag ctggaaaaga atgatgttgt ccttaaacaa cctacagaat atcatctata
421 acccggtaat cccgtatgtt ggcaccattc ccgatcagct ggatccctgga actttgattg
481 tgatatgtgg gcatgttcct agtgacgcag acagattcca ggtggatctg cagaatggca
541 gcagtgtgaa acctcgagcc gatgtggcct ttcatttcaa tccctcgttc aaaagggccg
601 gctgcattgt ttgcaatact ttgataaatg aaaaatgggg acgggaagag atcacctatg
661 acacgccttt caaaagagaa aagtcttttg agatcgtgat tatgggtgcta aaggacaaat
721 tccaggtggc tgtaaatgga aaacatactc tgctctatgg ccacaggatc ggcccagaga
781 aaatagacac tctgggcatt tatggcaaag tgaatattca ctcaattggg tttagcttca
841 gctcggactt acaaagtacc caagcatcta gtctggaact gacagagata agtagagaaa
901 atgttccaaa gtctggcacg ccccgagctc agactgtctc tccctcctgg gatttacagg
961 gtcattggctc tgaaacattc tgtagtgctc tttggacacg agttttcctg gagatcgctt
1021 tctgcaggcc tattggtctg actgtggcct cttttcagag cctgccattc gctgcaaggt
1081 tgaacacccc catgggcccct ggacgaactg tcgtcgtaa aggagaagtg aatgcaaatg
1141 ccaaaagctt taatgttgac ctactagcag gaaaatcaaa ggatattgct ctacacttga
1201 acccagcctt gaatattaaa gcatttgtaa gaaattcttt tcttcaggag tcttggggag
1261 aagaagagag aaatattacc tctttcccat ttagtcctgg gatgtacttt gagatgataa
1321 tttactgtga tgttagagaa ttcaagggtg cagtaaattg cgtacacagc ctggagtaca
1381 aacacagatt taaagagctc agcagtattg acacgctgga aattaatgga gacatccact
1441 tactggaagt aaggagctgg tagcctacct acacagctgc taaaaaaccc aaaatacaga
1501 atggcttctg tgatactggc cttgctgaaa cgcattctac tgtcattcta ttgtttatat
1561 tgtaaaaatg agcttgtgca ccattagatc ctgctgggtg ttctcagtc ttgccatgaa
1621 gtatggtggt gtctagcact gaatggggaa actgggggca gcaacactta tagccagtta
1681 aagccactct gccctctctc ctactttggc tgactcttca agaatgccat tcaacaagta
1741 tttatggagt acctactata atacagtagc taacatgtat tgagcacaga ttttttttgg
1801 taaaactgtg aggagctagg atatatactt ggtgaaacaa accagtatgt tccctgttct
1861 cttgagcttc gactcttctg tgctctattg ctgcgcactg ctttttctac aggcattaca
1921 tcaactccta aggggtcctc tgggattagt taagcagcta ttaaatcacc cgaagacact
1981 aatttacaga agacacaact ccttccccag tgatcactgt cataaccagt gctctaccgt
2041 atcccatcac tgaggactga tgttgactga catcatttta tcgtaataaa catgtggctc
2101 tattagctgc aagctttacc aagtaattgg catgacatct gagcacagaa attaaggcaa
2161 aaaaccaaag caaaacaaat acatggtgct gaaattaact tgatgccaaag cccaaggcag
2221 ctgatttctg tgtatttgaa cttagggcaa atcagagtct acacagacgc ctacagaaag
2281 tttcaggaag aggcaagatg cattcaattt gaaagatatt tatgggcaac aaagtaaggt
2341 caggattaga cttcaggcat tcataaggca ggcactatca gaaagtgtac gccaaactaag
2401 ggaccacaaa agcaggcaga ggtaatgcag aaatctgttt tgttcccatg aaatcaccaa
2461 tcaaggcctc cgttcttcta aagattagtc catcatcatt agcaactgag atcaaagcac
2521 tcttccactt tacgtgatta aaatcaaac tgtatcagca aaaaaaaaaa aaaaaaaaaa
2581 aaaaaaaaaa aaa (SEQ ID NO:91)

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FIGURE 49A

81/115

Galectin 8 (NM_006499)

MLSLNNLQNI IYNPVI PYVG TIPDQLDPGTLIVICGHVPSADR
FQVDLQNGSSVKPRADVAHFHFNPRFKRAGCIVCNTLINEKWGREEITYDTPFKREKSF
EIVIMVLKDKFQVAVNGKHTLLYGHRIGPEKIDTLGIYGKVNIHSIGFSFSSDLQSTQ
ASSLELTEISRENVPKSGTPQLQTVSPSWDLQGHGSETFCSVLWTRVFLEIAFCRPIG
LTVASFQSLPFAARLNTPMGPGRTVVVKGEVNANAKSFNVDLLAGKSKDIALHLNPRL
NIKAFVRNSFLQESWGEEERNITSFPFSPGMYFEMIIYCDVREFKVAVNGVHSLEYKH
RFKELSSIDTLEINGDIHLLEVRW (SEQ ID NO:92)

FIGURE 49B

82/115

PGS1 (bihlycan, NM_001711)

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1  agcctcccgc ccgcgcctc tgtctccctc tctccacaaa ctgccaggga gtgagtagct
61  gcttttcggtc cgcgggacac accggacaga tagacgtgcg gacggcccac cccccagcc
121 cgccaactag tcagcctgcg cctggcgctt cccctctcca ggtccatccg ccatgtggcc
181 cctgtggcgc ctctgtgtct tgctggccct gagccaggcc ctgccctttg agcagagagg
241 cttctgggac ttaccctgg acgatgggac attcatgatg aacgatgagg aagcttcggg
301 cgctgacacc tcgggcgtcc tggaccggga ctctgtcaca cccacctaca gcgccatgtg
361 tccttttcggc tgccactgcc acctgcgggt ggttcagtgc tccgacctgg gtctgaagtc
421 tgtgccc aaa gagatctccc ctgacaccac gctgctggac ctgcagaaca acgacatctc
481 cgagctccgc aaggatgact tcaagggctt ccagcacctc tacgccctcg tcctggtgaa
541 caacaagatc tccaagatcc atgagaaggc cttcagccca ctgcggaagc tgcagaagct
601 ctacatctcc aagaaccacc tgggtggagat cccgccc aac ctaccagct ccctggtgga
661 gctccgcata cagacaacc gcatccgcaa ggtgccc aag ggagtgttca gcgggctccg
721 gaacatgaac tgcatacaga tgggcgggaa cccactggag aacagtggct ttgaacctgg
781 agccttcgat ggctgaagc tcaactacct gcgcatactc gaggccaagc tgactggcat
841 ccccaaagac ctccctgaga ccctgaatga actccacctc gaccacaaca aaatccaggc
901 catcgaactg gaggacctgc ttcgctactc caagctgtac aggetgggcc taggccacaa
961 ccagatcagg atgatcgaga acgggagcct gagcttcctg cccacctctc gggagctcca
1021 cttggacaac aacaagttgg ccagggtgcc ctcagggtct ccagacctca agctcctcca
1081 ggtggtctat ctgcactcca acaacatcac caaagtgggt gtcaacgact tctgtcccat
1141 gggcttcggg gtgaagcggg ctactacaa cggcatcagc ctctcaaca accccgtgcc
1201 ctactgggag gtgcagccgg ccactttccg ctgcgtcact gaccgcctgg ccatccagtt
1261 tggcaactac aaaaagtaga ggcagctgca gccaccgcgg ggcctcagtg ggggtctctg
1321 gggaacacag ccagacatcc tgatggggag gcagagccag gaagctaagc caggggccag
1381 ctgcgtccaa cccagcccc cactcgggt ccctgacccc agctcgatgc cccatcaccg
1441 cctctccctg gctcccaagg gtgcaggtgg gcgcaaggcc cggccccc at ccatgttcc
1501 cttggcctca gagctgcccc tgctctccca ccacagccac ccagaggcac cccatgaagc
1561 ttttttctcg ttcaactcca aacc caagtg tccaaggctc cagtcctagg agaacagtc
1621 ctgggtcagc agccaggagg cgggtccataa gaatggggac agtgggctct gccagggtg
1681 ccgcacctgt ccagacacac atgttctgtt cctcctctc atgcatttcc agcctttcaa
1741 cctccccga ctctgcggt cccctcagcc cccttgcaag ttcattggct gtccctccca
1801 gacccctgct ccaactggccc ttcgaccagt cctcccttct gttctctct tccccgtct
1861 tcctctctct ctctctctct ctctctctct ctttctgtgt gtgtgtgtgt gtgtgtgtgt
1921 gtgtgtgtgt gtgtgtgtgt cttgtgcttc ctacagacct tctcgttct gagcttgggtg
1981 gcctgttccc tccatctctc cgaacctggc ttcgctgtc cctttcactc cacacctct
2041 ggcttcttgc cttgagctgg gactgcttct tgtctgtccg gcctgcaccc agccccctg
2101 caaaaaacc cagggacagc ggtctcccca gcctgcctg ctacggcctt gcccccaaac
2161 ctgtactgtc ccggaggagg tggggagggt gaggccagc atcccgcga gatgacacca
2221 tcaaccgcca ggtcccaga caccgggttt cctagaagcc cctcaccccc actggccac
2281 tgggtggctag gtctccctt atccttctgg tccagcgcaa ggaggggctg cttctgaggt
2341 cgggtggctgt ctttccatta aagaaacacc gtgcaacgtg aaaaaaaaaa aaaaaaaaaa
2401 a (SEQ ID NO:93)

```

FIGURE 50A

83/115

PGS1 (bihlycan, NM_001711)

MWPLWRLVSLLALSQALPFEQRGFWDFTLDDGPFMMNDEEASGA
DTSGVLDPDSTPTYSAMCPFGCHCHLRVVQCSDLGLKSVPEISPD'TTLLDLQNNDI
SELRKDDFKGLQHLYALVLVNNKISKIHEKAFSPLRKLQKLYISKHNLVEIPNLPSS
LVELRIHDNRIRKVPKGVFSGLRNMNCIEMGGNPLENSGFEPGAFDGLKLNLYLRSEA
KLTGIPKDLPETLNEHLDHNKIQAIELEDLLRYSKLYRLGLGHNQIRMIENGSL'SFL
PTLRELHLDNNKLARVPSGLPDLKLLQVVYLHSNNITKVGVNDFCPMGFGVKRAYNG
ISLFNNPVPYWEVQPATFRCVTDRLAIQFGNYKK (SEQ ID NO:94)

FIGURE 50B

84/115

Frizzled 2 (NM_001466)

```

1  cgagtaaagt  ttgcaaagag  gcgcgggagg  cggcagccgc  agcgaggagg  cggcggggaa
61  gaagcgagc  ctccgggttg  ggggcggggg  cggggggggc  gccaaaggag  cgggtggggg
121  gcggcgggcc  gcatgcggcc  ccgcagcgcc  ctgccccgcc  tgctgctgcc  gctgctgctg
181  ctgccccgcc  cggggccggc  ccagttccac  ggggagaagg  gcatctccat  cccggaccac
241  ggctttctgc  agcccatctc  catcccgctg  tgcacggaca  tcgcctacaa  ccagaccatc
301  atgcccaccc  ttctgggcca  cacgaaccag  gaggacgcag  gcctagagg  gcaccagttc
361  tatccgctgg  tgaagggtgc  gtgctcgccc  gaactgcgct  tcttcctgtg  ctccatgtac
421  gcacccgtgt  gcacccgtgt  ggaacaggcc  atcccgcctg  gccgctctat  ctgtgagcgc
481  gcgcgccagg  gctgcgaagc  cctcatgaac  aagttcggtt  ttcagtggcc  cgagcgccctg
541  cgctgcgagc  acttcccgcg  ccacggcgcc  gagcagatct  gcgtcgggca  gaaccactcc
601  gaggacggag  ctcccgcgct  actcaccacc  gcgcgcgcgc  cgggactgca  gccgggtgcc
661  gggggcacc  cgggtggccc  gggcggcggc  ggcgctcccc  cgcgctacgc  cacgctggag
721  cacccttcc  actgcccgcg  cgtcctcaag  gtgccatcct  atctcagcta  caagtttctg
781  ggcgagcgtg  attgtgctgc  gccctgcgaa  cctgcgcggc  ccgatggttc  catgttcttc
841  tcacaggagg  agacgcgttt  cgcgcgcctc  tggatcctca  cctggtcggg  gctgtgctgc
901  gcttccacct  tcttcaactg  caccacgtac  ttggtagaca  tgcagcgctt  ccgctaccca
961  gagcggccta  tcatttttct  gtcgggctgc  tacaccatgg  tgcgggtggc  ctacatcgcg
1021  ggcttcgtgc  tccaggagcg  cgtggtgtgc  aacgagcgct  tctccgagga  cggttaccgc
1081  acggtggtgc  agggcaccaa  gaaggagggc  tgcaccatcc  tcttcatgat  gctctacttc
1141  ttcagcatgg  ccagctccat  ctggtgggtc  atcctgtcgc  tcacctgggt  cctggcagcc
1201  ggcataaagt  ggggccacga  ggccatcgag  gccactctc  agtaactcca  cctggccgcc
1261  tgggccgtgc  cgcccgta  gaccatcacc  atcctggcca  tgggccagat  cgacggcgac
1321  ctgctgagcg  gcgtgtgctt  cgtaggcctc  aacagcctgg  acccgctgcg  gggcttcgtg
1381  ctagcgccgc  tcttcgtgta  cctgttcata  ggcacgtcct  tcctcctggc  cggcttcgtg
1441  tcgctcttcc  gcatccgcac  catcatgaag  cagcagcgca  ccaagaccga  aaagctggag
1501  cggctcatgg  tgcgcacgg  cgtcttctcc  gtgctctaca  cagtggccgc  caccatcgctc
1561  atcgcttgct  acttctacga  gcaggccttc  cgcgagcact  gggagcgctc  gtgggtgagc
1621  cagcactgca  agagcctggc  catcccgtgc  ccggcgcaact  acacgcgcgc  catgtcgccc
1681  gacttcacgg  tctacatgat  caaatacctc  atgacgtca  tcgtgggcat  cacgtcgggc
1741  ttctggatct  ggtcgggcaa  gacgctgcac  tcgtggagga  agttctacac  tcgcctcacc
1801  aacagccgac  acggtgagac  caccgtgtga  gggacgcccc  caggccggaa  ccgcgcggcg
1861  ctttccctcg  cccgggggtg  ggcccctaca  gactccgtat  tttatTTTTT  taaataaaaa
1921  acgatcgaaa  ccatttcaact  tttagggtgc  tttttaaaag  agaactctct  gcccacaccc
1981  ccc (SEQ ID NO: 95)

```

FIGURE 51A

85/115

Frizzled 2 (NM_001466)

MRPRSALPRLLLPLLLLPAAGPAQFHGEKGISIPDHGFCQPISI
PLCTDIAYNQTIMPNLLGHTNQEDAGLEVHQFYPLVKVQCSPELRFFLCSMYAPVCTV
LEQAIPPCRSICERARQGCEALMNKFGFQWPERLRCEHFPRHGAEQICVGQNHSEDGA
PALLTTAPPPGLQPGAGGTPGGPGGGGAPPRYATLEHPFHCPRVLKVPSYLSYKFLGE
RDCAAPCEPARPDGSMFFSQEETRFARLWILTWSVLCCASTFFTVTTYLVDMQRF RYP
ERP IIFLSG CYTMVSVAYIAGFVLQERVVCNERFSEDGYRTVVQGTKKEGCTILFMML
YFFSMASSIWWVILSLTWFLAAGMKWGHEAIEANSQYFH LAAWAVPAVKTITILAMGQ
IDGDLLSGVCFVGLNSLDPLRGFVLAPLFVYLFIGTSFLLAGFVSLFRIRTIMKHDGT
KTEKLERLMVRIGVFSVLYTVPATIVIACYFYEQAFREHWERSWVSQHCKSLAIPCPA
HYTPRMSPDFTVYMIKYLMTLIVGITSGFWIWSGKTLH SWRKFYTRLTNSRHGETTV (SEQ ID NO:96)

FIGURE 51B

86/115

ISLR (NM_005545)

```

1 aagcagttgt tttgctggaa ggagggagtg cgcgggctgc cccgggctcc tccctgccgc
61 ctcctctcag tggatgggtc caggcacccct gtctggggca gggagggcac aggcctgcac
121 atcgaagggtg ggggtgggacc aggctgcccc tcgccccagc atccaagtc tcccttgggc
181 gcccgtggcc ctgcagactc tcagggtctaa ggtcctctgt tgcttttttg tccacctta
241 gaagaggctc cgcttgacta agagtagctt gaaggaggca ccatgcagga gctgcactg
301 ctctgggtgg cgcttctcct gggcctggct caggcctgcc ctgagccctg cgactgtggg
361 gaaaagtatg gcttccagat cgccgactgt gcctaccgcg acctagaatc cgtgccgcct
421 ggcttcccgg ccaatgtgac tacactgagc ctgtcagcca accggctgcc aggccttgccg
481 gagggtgcct tcagggaggt gcccctgctg cagtgcctgt ggctggcaca caatgagatc
541 cgcacggtgg ccgccggagc cctggcctct ctgagccatc tcaagagcct ggacctcagc
601 cacaatctca tctctgactt tgcctggagc gacctgcaca acctcagtgc cctccaattg
661 ctcaagatgg acagcaacga gctgaccttc atcccccgcg acgccttccg cagcctccgt
721 gctctgcgct cgctgcaact caaccacaac cgcttgcaac cattggccga gggcaccttc
781 accccgctca ccgcgtgtc ccacctgcag atcaacgaga accccttcga ctgcacctgc
841 ggcactcgtg ggctcaagac atgggccctg accacggccg tgtccatccc ggagcaggac
901 aacatcgctt gcacctcacc ccatgtgctc aagggtacgc cgctgagccg cctgccgcca
961 ctgccatgct cggcgccctc agtgcagctc agctaccaac ccagccagga tggtgccgag
1021 ctgcggcctg gttttgtgct ggcactgcac tgtgatgtgg acgggcagcc ggcccctcag
1081 cttcactggc acatccagat acccagtggc attgtggaga tcaccagccc caacgtgggc
1141 actgatgggc gtgccctgcc tggcacccct gtggccagct ccagcccgcg cttccaggcc
1201 tttgccaatg gcagcctgct tatccccgac tttggcaagc tggaggaagg cacctacagc
1261 tgcttgccca ccaatgagct gggcagtgct gagagctcag tggacgtggc actggccacg
1321 cccggtgagg gtggtgagga cactctgggg cgcaggttcc atggcaaagc ggttgagggg
1381 aagggtcgtc atacggttga caacgaggtg cagccatcag ggccggagga caatgtggtc
1441 atcatctacc tcagccgtgc tgggaaccct gaggtgcag tcgcagaagg ggtccctggg
1501 cagctgcccc caggcctgct cctgctgggc caaagcctcc tcctcttctt cttcctcacc
1561 tccttctagc cccacccagg gcttccctaa ctctccctt tgccctacc aatgcccctt
1621 taagtgtgct aggggtctgg ggttggcaac tcttgaggcc tgcattgggtg acttcacatt
1681 ttcttacctc tccttctaata ctcttctaga gcacctgcta tccccaaact ctagacctgc
1741 tccaaactag tgactaggat agaatttgat cccctaactc actgtctgcg gtgctcattg
1801 ctgctaacag cattgcctgt gctctcctct caggggcagc atgctaacgg ggcgacgtcc
1861 taatccaact gggagaagcc tcagtgtgtg aattccaggc actgtgactg tcaagctggc
1921 aaggggcagg attgggggaa tggagctggg gcttagctgg gaggtggtct gaagcagaca
1981 gggaatggga gaggaggatg ggaagtagac agtggctggt atggtctctga ggctccctgg
2041 ggctgctca agctcctcct gctccttgct gttttctgat gatttggggg cttgggagtc
2101 cttttgtcct catctgagac tgaaatgtgg ggatccagga tggttctctt cctcttacc
2161 ttcttccctc agcctgcaac ctctatcctg gaacctgtcc tcccttctc cccaactatg
2221 catctgttgt ctgctcctct gcaaaggcca gccagcttgg gagcagcaga gaaataaaca
2281 gcatttctga tgcc (SEQ ID NO:97)

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FIGURE 52A

87/115

ISLR (NM_005545)

MQELHLLWWALLLGLAQACPEPCDCGEGYGFQIADCAYRDLESV
PPGFPANVTTLSSLNRLPGLPEGAFREVPLLQSLWLAHNEIRTVAAGALASLSHLKS
LDLSHNLI SDFAWSDLHNLSALQLLKMDSNELTFIPRDAFRSLRALRSLQLNHNRLHT
LAEGTFTPLTALSHLQINENPFDCTCGIVWLKTWALTAVSIPEQDNIACTSPHVLKG
TPLSRLPPLPCSAPSVQLSYQPSQDGAELRPGFVLALHCDVDGQPAPQLHWHIQIPSG
IVEITSPNVGTDGRALPGTPVASSQPRFQAFANGSLLIPDFGKLEEGTYSCLATNELG
SAESSVDVALATPGEGGEDTLGRRFHGKAVEGKGCYTVDNEVQPSGPEDNVVIIYLSR
AGNPEAAVAEGVPGQLPPGLLLLGQSLLLLFFFLTSE (SEQ ID NO:98)

FIGURE 52B

88/115

FLJ23399 (NM_022763)

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1  tgacccgggtc cgtgtggggcc agcgggaagg aagccagttg aggggaagttc tccatgaatg
61  tacgtcacaa tgatgatgac cgaccaaadc cctctggaac tgccaccatt gctgaacgga
121 gaggtagcca tgatgccccca cttggtgaat ggagatgcag ctccagcaggt tattctcggt
181 caagttaatc caggtgagac tttcacaata agagcagagg atggaacact tcagtgcatt
241 caaggacctg ctgaagttcc catgatgtca cccaatggat ccattcctcc cattcatgtg
301 cctccagggt atatatcaca ggtgattgaa gatagtactg gagtccgccc ggtggtgggc
361 acaccccagt ctctgagtg ttatccccca agtaccctcc cagccatgtc tccaacccat
421 catctccctc cctatctgac tcaccatcca cattttatcc ataactcaca cacggcttac
481 taccacacctg ttaccggacc tggagatatg ccgcctcagt tttttcccca gcatcatctt
541 cccacacaaa tatatggtga gcaagaaatt ataccatttt atggaatgtc aagctacatc
601 acccgagaag accagtacag caagcctccg caaaaaaac tgaaagaccg ccagatcgat
661 cgccagaacc gactcaacag acctccttct gctatctaca aaagcagctg cacaacagta
721 tacaatggct atgggaaggg ccatagtggg ggaagtggcg gaggcggcag cggtagtggg
781 cccggaatta agaaaacaga gcgacgagca agaagcagcc caaagtcgaa tgattcagac
841 ttgcaagaat atgagttgga agtaaagagg gtgcaagaca ttctttcggg aatagagaaa
901 ccacaggttt ctaatatcca ggcaagagca gttgtgttgt cctgggctcc cctgttgga
961 ctttcctgtg gacccacag tggctcttcc ttcccctaca gttacgaggt ggccttatca
1021 gacaaaggac gagatggaaa atacaagata atttacagtg gagaagaatt agaatgtaac
1081 ctgaaagatc ttagaccagc aacagattat catgtgaggg tgtatgccat gtacaattcc
1141 gtaaagggat cctgctccga gcctgttagc ttcaccaccc acagctgtgc acccgagtgt
1201 cttttccccc ctaagctggc acataggagc aaaagttcac taacctgca gtggaaggca
1261 ccaattgaca acggttcaaa aatcaccaac taccttttag agtgggatga gggaaaaaga
1321 aatagtgggt tcagacagtg cttcttcggg agccagaagc actgcaagtt gacaaagctt
1381 tgtccggcaa tggggtacac attcaggctg gccgctcgaa acgacattgg taccagtggg
1441 ttgtacaaac aggtggtgtg ctacacatta ggaaatatcc ctccagatgc ttctgcacca
1501 aggtctggtc gagctggcat cacatgggtc acgttgagcaggatgaaaa tgataacctt
1561 tcacccgagg aagtgtcac ctacaccttg gaaattcagg aggatgaaaa tgaataacctt
1621 ttccacccaa aatacactgg agaggattta acctgtactg tgaaaaatct caaaagaagc
1681 acacagtata cattcaggct gactgcttct aatacggag gaaaaagctg tccaagcgaa
1741 gttcttggtt gtacgacgag tcctgacagg cctggacctc ctaccagacc gcttgtcaaa
1801 ggcccagtta catctcatgg ctttagtgct aaatgggatc cccctaagga caatggtggg
1861 tcagaaatcc tcaagtactt gctagagatt actgatggaa attctgaagc gaatcagtg
1921 gaagtggcct acagtgggtc ggctaccgaa tacaccttca cccactgaa accaggcaact
1981 ttgtacaaac tccgagcatg ctgcatcagt accggcgagc acagccagtg ttctgaaagt
2041 ctccctgttc gcacactaag cattgcacca ggtcaatgtc gaccaccgag ggttttgggt
2101 agaccaaagc acaaagaagt ccacttagag tgggatgttc ctgcatcgga aagtggctgt
2161 gaggtctcag agtacagcgt ggagatgacg gagcccgagg acgtagcctc ggaagtgtac
2221 catggcccag agctggagtg caccgtcggc aacctgcttc ctggaaccgt gtatcgcttc
2281 cgggtgaggg ctctgaatga tggaggggat ggtccctatt ctgatgtctc agaaattacc
2341 actgctgcag ggctcctgg acaatgcaaa gcaccttgta tttcttgtag acctgatgga
2401 tgtgtcttag tgggttggga gagtctgtat agttctgggt ctgacatctc agagtacagg
2461 ttggaatggg gagaagatga agaactctta gaactcattt atcatgggac agacaccgt
2521 tttgaaataa gagacctgtt gcctgctgca cagtattgct gtagactaca ggccttcaat
2581 caagcagggg cagggccgta cagtgaactt gtcctttgcc agacgccagc gtctgccctt
2641 gaccccgctc ccactctctg tgtcctggag gaggagcccc ttgatgccta ccctgattca
2701 cttctgctgt gccttgtagt gaactgggaa gagccgtgca ataacggatc tgaaatcctt
2761 gcttacacca ttgatctagg agacactagc attaccgtgg gcaacaccac catgcatgtt
2821 atgaaagatc tccttccaga aaccacctac cggatcagaa ttcaggctat aaatgaaatt
2881 ggagctggac catttagtca gttcattaaa gcaaaaactc ggccattacc acccttgctt
2941 cctaggctag aatgtgctgc tgctggctct cagagcctga agctaaaatg gggagacagt
3001 aactccaaga cacatgctgc tgaggacatt gtgtacacac tacagtgga ggacagaaac
3061 aagaggttta tttcaatcta cagaggacct agccacacct acaaggtcca gagactgacg
3121 gaattcacat gctactcctt cagaatccag gcagcaagcg aggctggaga agggcccttc
3181 tcagaaacct ataccttcag cacaacaaaa agtgtcccc ccaccatcaa agcacctcga
3241 gtaacacagt tagaaggaaa ttcattgtga attttatggg agacggtagc atcaatgaaa
3301 ggtgacctg ttaactacat tctgcaggtt ttggttgga gagaatctga gtacaaacag

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FIGURE 53A

89/115

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3361 gtgtacaagg gagaagaagc cacattccaa atctcaggcc tccagaccac cacagactac
3421 aggttccgcg tatgtgcgtg tcgtcgctgt ttagacacct ctcaggagct aagcggagcc
3481 ttcagccctt ctgcggtctt tgtattacaa cgaagtgagg tcatgcttac aggggacatg
3541 gggagcttag atgatcccaa aatgaagagc atgatgccta ctgatgaaca gtttgcagcc
3601 atcattgtgc ttggctttgc aactttgtcc attttatttg cctttatatt acagtacttc
3661 ttaatgaagt aaacccaaca aaactagagg tatgaattaa tgctacacat ttaatacac
3721 acattttatt agatactccc ctttttaaag cccttttggt ttttgattta tatactctgt
3781 tttacagatt tagctagaaa aaaaatgtca gtgttttggt gcacctttt gaaatgcaaa
3841 actaggaaaa gggttaaactg gatttttttt tttaaaaaaa agaaaaaaa agaagaaaag
3901 tataccgat accaaaagct agctttctta tgttttcctt taaattttca gatttacctt
3961 cattctgttt tcaactgatg cttttgcaag cctttgattt tttttttttt gttacagttt
4021 agtaatttat attcaccagt cacttcatat gtcttgaaca tctgtatctg taaacatgaa
4081 tcaccgtgtg tgtacttaca gggctaggat ttcagtgttg tcagagtatt accacacagc
4141 aacagcaaca tacagaagat atgttcactc agataagact gccctaaaca accattttgt
4201 cactcagtta ttttaactgtg tttagctcat ttaaatacaa atgtgtactt taatctaaaa
4261 tgtttttaata atctgtattt cttataattt taacactatg agctgcctgt ataagaaatc
4321 aagtaaccag aatgcacctt taaattatgg agcattgtag attttaccac atcaattcat
4381 agcagtaact ttaagagggc attgtgcaat agttagtgtt tttcttgttc agctatttta
4441 aaggctgctt taacttgctt gtttgctctt gtatataact acttctaact taatcactag
4501 agttattata ttctgttatg tttgaccaga attatatgac aagaactggg gacagtttag
4561 tgcctctgcc cattgtccat gatttacact aattgtgagc agtcttctta tgtgtcagct
4621 cattattttt gaaacatttg cctttaggct gttctttgag gtatcaatga agtgattgaa
4681 tttcaatacc ttaattcagt gcacataata ctaatgtaac agcagatgaa aattgataaa
4741 acccaaaaaga gagtcatcta aatttgtagt tcctatttct gtgggttgc ctggccatgg
4801 ttggagaggg aatgggtgtt gatggtaaac acaggggtgt tggggatcaa ggagcctaga
4861 ttctctccct ggatctgtca ctaacttgct gcgtgacctg aacacgtcac tttacctctc
4921 tgtgcctcag ttttcccatg catgaaaaat aaaataaaat aaaacgggga ttctaattgt
4981 tgaagtgc ttgagatctt tgaccaacag gtgctattgg agtgcaaagt agtctctta
5041 cgtgtttatt ttgagtcatg agataatcaa ttttaacca aagtcattgg attatttata
5101 tgaagtccat aatgttcgag tacctcaggg acatttaaga gttggagggtg caaatatatt
5161 ccaaaagggg gcaacagaca cagtgtatcc cctgcttct gtttttgat atttttgcta
5221 cttgggtttt cttgatcata gctattttgt gcttgatctt tattgtctaa gatgcagtat
5281 cctgtactag cttataatat tcccatacca aagtcatggg gaaacaaaca ttattttgtt
5341 tttgggttat ttatactata ttctgcatac agtactttaa atgccaatta cagtgcaatc
5401 tttattttatt gtaaaatttt ttaagtgtac ttatgtacta attttccctt gtagcatgtt
5461 atatttttgt gttttatact tttgtaattt taggtcagtc ttgttctctg gcaacatctg
5521 tagtattatt aatcttctga ctttttctta tgtttttaa aagataagag catctagtc
5581 attaaatgcc aaaaaaaaaa tacattatca gtgattgaaa cgtttacatg taccacaaaa
5641 ccataatcat ctcttggaag aaaatgctga gatcaatgaa ttattctgtg tgcctatatt
5701 gacgtagtga gtactagaga gttctgtatt ttattattga ctataataat tagtttaatt
5761 agctttgcaa actgatggca tcaaggtaaa tatatttttg ccaaagttct ggccttccaa
5821 aactcacccc cttattttaa tgtgtgctat gaccactat gaccacagca tctgcatttt
5881 ctaaaaaatt ccatgcaggt gttttgggga gaggtatttt ttaagcaatg aaaattcaac
5941 tgagtacaaa gccccctctt ggggggttgg ggaagtctct tttttgaaa acttcagaac
6001 tgctgctata aagaaattct ctaattggtt gaattttttt ttaagttaa tagtacttta
6061 ggccaaaatt tatatgaata tttgatcttc ttgagatttt catactatca ttaaccacc
6121 aggaagctga agtgtgtgaa gtacaaagct gacagcactt tattttattg ctctccatta
6181 tttggtattc atttatattc ttcagtcaga aaattattac tctctatggc actgtttttt
6241 atcacaaata tgtatatgtg atattgatat ataactatat atattgccat cacacacgaa
6301 caataaaaata aagtgttcta ttaacctgat ctcttgccc ttttgctatg tgaggagtga
6361 atgagtggcc ttctgatgct ctgactcttc tctgtatgtc aaactcatcc ctggcacaag
6421 aaattccagt catgtgaagc aaactgccct ttgtcctcaa agaaattgtt gaaaaagaaa
6481 acttttttaa gagatttttt gcatattctc tgcttggttc ttatcaactt gaaatgttgg
6541 cattttctaa ccttgttttg ttggctacaa taattcagta ttcagtcaa aattgagaag
6601 tgccctaatt gaatgtgttt gaatgttata cttgcacaat tctttaaatt gaaagataaa
6661 atgttttacc tcaactgttg acatacatc caagcttttc aactctagga gaaaaagaaa
6721 atcatgtttt cctgtattgt aaattttaga ctatttcata tacattgtat taaaactgcc
6781 atatcaattt taatgtatag attttgcaaa tattatgcta tatgtaatac ctaactgtat
6841 ctgtagtgta tatgtaatat atttatgccc aataaatgtt ttaattcttt ctga (SEQ ID

```

NO: 99)

FIGURE 53B

90/115

FLJ23399 (NM_022763)

MYVTMMMTDQIPLLELPPLLNGEVAMMPHLVNGDAAQQVILVQVN
PGETFTIRAEDGTLQCIQGPAEVPMMSPNGSIPPIHVPPGYISQVIEDSTGVRRVVVT
PQSPECYPPSYPSAMSPTHHLPPYLTHHPFIHNSHTAYYPPVTGPGDMPPQFFPQHH
LPHTIYGEQEII PFYGMSSYITREDQYSKPPHKKLKDRQIDRQNRLNRPPSAIYKSSC
TTVYNGYGKGHSGSGGGSGSGPGIKKTERRARSSPKSNDSDLQEYELEVKRVQDIL
SGIEKPQVSNIQARAVVLSWAPPVGLSCGPHSGLSFPYSYEVALSDKGRDGKYKIIYS
GEELEC NLKDLR PATDYHVRVYAMYN SVKGSCSEPV SF TTHSCAPECPFPKLAHRSK
SSLTLQWKAPIDNGSKITNYLLEWDEGKRNSGFRQCFFGSQKHCKLTKLCPAMGYTFR
LAARNDIGTSGYSQEVVCYTLGNIPQMPSAPRLVRAGITWVTLQWSKPEGCSPEEVIT
YTLLEIQEDENDNLFHPKYTGEDLTCTVKNLKRSTQYTFRLTASNTEGKSCPSEVLVCT
TSPDRPGPPTRPLVKGPVTSHGFSVKWDPPKDNGGSEILKYLLEITDGNSEANQWEVA
YSGSATEYTFTHLKPGTLYKL RACCI STGGHSQCSESLPVRTL SIAPGQCRPPRVLGR
PKHKEVHLEWDVPASESGCEVSEYSVEMTEPEDVASEVYHGPELECTVGNLLPGTVYR
FRVRALNDGGYGPYSDVSEITTAAGPPGQCKAPCISCTPDGCVLVGWESPDSSGADIS
EYRLEWGEDEESLELIYHGTDRFEIRDLLPAAQYCCRLQAFNQAGAGPYSELVLCQT
PASAPDPVSTLCVLEEEPLDAYPDSPSACLVLNWEEPCNNGSEILAYTIDLGDT SITV
GNTTMHVMKDLLPETTYRIRIQ AINEIGAGPFSQFIKAKTRPLPPLPPRLECAAAGPQ
SLKLKWGDSNSKTHAAEDIVYTLQLEDNRNKR FISIYRGPSHTYKVQRLTEFTCYSFRI
QAASEAGEGPFSETYTFSTTKSVPPTIKAPRVTQLEGNSCEILWETVPSMKGDPVNYI
LQVLVGRESEYKQVYKGEEATFQISGLQTNTDYRFRVCACRRCLDTSQEELSGAFSPSA
AFVLQRSEVMLTGDMGSLDDPKMKSMMP TDEQFAAIIVLGFATLSILFAFILQYFLMK (SEQ ID NO:100)

FIGURE 53C

91/115

TEM1 (NM_020404)

```

1  tcgcgatgct gctgcgcctg ttgctggcct gggcgggcgc agggcccaca ctggggccagg
61  acccctgggc tgcctgagccc cgtgccgcct gcggccccag cagctgctac gctctcttcc
121  cacggcgccg caccttcctg gaggcctggc gggcctgccg cgagctgggg ggcgacctgg
181  ccactcctcg gacccccgag gagggccagc gtgtggacag cctgggtggg gcggggcccag
241  ccagccggct gctgtggatc gggctgcagc ggcaggcccc gcaatgccag ctgcagcgcc
301  cactgcgcgg cttcacgtgg accacagggg accaggacac ggctttcacc aactggggccc
361  agccagcctc tggaggcccc tggccggccc agcgtgtgtg ggccctggag gcaagtggcg
421  agcaccgctg gctggaggggc tcgtgcacgc tggctgtcga cggctacctg tgccagtttg
481  gcttcgaggg cgcccgcccg gcgctgcaag atgaggcggg ccaggccggc ccagccgtgt
541  ataccacgcc cttccacctg gtctccacag agtttgagtg gctgcccttc ggctctgtgg
601  ccgctgtgca gtgccaggct ggcaggggag cctctctgct ctgctggaag cagcctgagg
661  gaggtgtggg ctggtcacgg gctgggcccc tgtgcctggg gactggctgc agccctgaca
721  acgggggctg cgaacacgaa tgtgtggagg aggtggatgg tcacgtgtcc tgccgctgca
781  ctgagggtct ccggtggcga gcagacgggc gcagtgtcga ggacctgtgt gccaggctc
841  cgtgcgagca gcagtgtgag cccggtgggc cacaaggcta cagctgccac tgtcgccctg
901  gtttcgggcc agcggaggat gatccgcacc gctgtgtgga cacagatgag tgccagattg
961  ccggtgtgtg ccagcagatg tgtgtcaact acgttggtgg cttcgagtgt tattgtagcg
1021  agggacatga gctggaggct gatggcatca gctgcagccc tgcagggggc atgggtgccc
1081  aggcttccca ggacctcgga gatgagttgc tggatgacgg ggaggatgag gaagatgaag
1141  acgagggcct gaaggccttc aacggtggct ggacggagat gcctgggata ctgtggatgg
1201  agcctacgca gccgcctgac tttgccctgg cctatagacc gagcttccca gaggacagag
1261  agccacagat accctaccgg gagcccacct ggccaccccc gctcagtgcc cccagggtcc
1321  cctaccactc ctcaagtgtc tccgtcacc ggctgtgggt ggtctctgcc acgcatccca
1381  cactgccttc tgcccaccag cctcctgtga tccctgccac acaccagctt ttgtcccgtg
1441  accaccagat ccccgctgat gcagccaact atccagatct gccttctgcc taccaaccgg
1501  gtattctctc tgtctctcat tcagcacagc ctccctgcca ccagccccct atgatctcaa
1561  ccaaatatcc ggagctcttc cctgccacc agtcccccat gtttcagac acccgggtcg
1621  ctggcaccca gaccaccact catctgcttg gaatccacc taacctgcc cctctggtca
1681  ccaccctcgg tgcccagcta cccctcaag cccagatgc ccttgctctc agaaccagg
1741  ccaccagctt tccattatc ccaactgcc agccctctct gaccaccacc tccagggtcc
1801  ctgtgtctcc tgcccatcaa atctctgtgc ctgtgccac ccagcccgca gccctccca
1861  ccctcctgcc ctctcagagc cccactaacc agacctacc catcagccct acacatccc
1921  attccaaagc cccccaatc ccaagggaag atggccccag tcccaagttg gccctgtggc
1981  tgccctcacc agctcccaca gcagcccaa cagccctggg ggaggtgggt cttgccgagc
2041  acagccagag ggatgaccgg tggctgtgtg tggcactcct ggtgccaacg tgtgtctttt
2101  tgggtgtcct gcttgcactg ggcacgtgt actgcaccgg ctgtggcccc catgcacca
2161  acaagcgcac cactgactgc tatcgctgg tcatccatgc tgggagcaag agcccaacag
2221  aacccatgcc cccagggggc agcctcacag ggggtgcagac ctgcagaacc agcgtgtgat
2281  ggggtgcaga cccctctcat ggagtatgg gcgctggaca catggccggg gctgcaccag
2341  ggacccatgg gggctgccc gctggacaga tggcttctct cccccaggc ccagccaggg
2401  tcctctctca accactagac ttggctctca ggaactctgc ttctggccc agcgtctgtg
2461  accaaggata caccaaagcc cttaagacct cagggggcgg gtgctggggg cttctccaat
2521  aaatgggggt tcaaccttaa aaaaaaaaaa aaaaaaaaaa aaaaa (SEQ ID NO:101)

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FIGURE 54A

92/115

TEM1 (NM_020404)

MLLRLLLAWAAAGPTLGQDPWAAEPRAACGPSSCYALFPRRRTF
LEAWRACRELGGDLATPRTPEEAQRVDSL VGAGPASRLLWIGLQRQARQCQLQRPLRG
FTWTTGDQDTAFTNWAQPASGGPCPAQRCVALEASGEHRWLEGSC TLAVDGYLCQFGF
EGACPALQDEAGQAGPAVYTTPFHLVSTEFEWLPFGSVAAVQCQAGRGASLLCVKQPE
GGVGWSRAGPLCLGTGCS PDNGGCEHECV EVDGHVSCRCTEGFRLAADGRSCEDPCA
QAPCEQQCEPGGPQGYSCHCRLGFRPAEDDPHRCVDTDECQIAGVCQ QMCVNYVGGFE
CYCSEGHELEADGISCS PAGAMGAQASQDLGDELLDDGEDEEDEDEAWKAFNGGWTEM
PGILWMEPTQPPDFALAYRPSFPEDREPQIPYPEPTWPPPLSAPRVPYHSSVLSVTRP
VVVSATHPTLPSAHQPPVIPATHPALSRDHQIPVIAANYPDLP SAYQPGILSVSHSAQ
PPAHQPPMISTKYPELFP AHQSPMFPDTRVAGTQT TTHLPGI PPNHAPLVTTLGAQLP
PQAPDALVLR TQATQLPIIPTAQPSLT TTSRSPVSPAHQISVPAATQPAALPTLLPSQ
SPTNQTSPI SPTHPHSKAPQIPREDG P SPKLALWLPSAPTAAPTALGEAGLAHSQR
DDRWLLVALLVPTCVFLV VLLALGIVYCTRCGPHAPNKRITDCYRWVIHAGSKSPTEP
MPPRGSLTGVQTCRTSV (SEQ ID NO:102)

FIGURE 54B

93/115

Tie2 ligand2 (NM_001147)

```

1  tggggttggtg  tttatctcct  cccagccttg  agggaggggaa  caacactgta  ggatctgggg
61 agagaggaac  aaaggaccgt  gaaagctgct  ctgtaaaagc  tgacacagcc  ctcccaagtg
121 agcaggactg  ttcttcccac  tgcaatctga  cagtttactg  catgcctgga  gagaacacag
181 cagtaaaaac  caggtttgct  actggaaaaa  gaggaaagag  aagactttca  ttgacggacc
241 cagccatggc  agcgtagcag  ccctgcgttt  cagacggcag  cagctcggga  ctctggacgt
301 gtgtttgccc  tcaagtttgc  taagctgctg  gtttattact  gaagaaagaa  tgtggcagat
361 tgttttcttt  actctgagct  gtgatcttgt  cttggccgca  gcctataaca  actttcggaa
421 gagcatggac  agcataggaa  agaagcaata  tcaggtccag  catgggtcct  gcagctacac
481 tttcctcctg  ccagagatgg  acaactgccg  ctcttcctcc  agccccacg  tgtccaatgc
541 tgtgcagagg  gacgcgccgc  tcgaatacga  tgactcgggtg  cagaggctgc  aagtgcaggga
601 gaacatcatg  gaaaacaaca  ctcagtggct  aatgaagctt  gagaattata  tccaggacaa
661 catgaagaaa  gaaatggtag  agatacagca  gaatgcagta  cagaaccaga  cggctgtgat
721 gatagaaata  gggacaaaac  tgttgaacca  aacagctgag  caaacgcgga  agttaactga
781 tgtggaagcc  caagtattaa  atcagaccac  gagacttgaa  cttcagctct  tggaacactc
841 cctctcgaca  aacaaattgg  aaaaacagat  tttggaccag  accagtgaag  taaacaaatt
901 gcaagataag  aacagtttcc  tagaaaagaa  ggtgctagct  atggaagaca  agcacatcat
961 ccaactacag  tcaataaaaag  aagagaaaga  tcagctacag  gtggttagtat  ccaagcaaaa
1021 ttccatcatt  gaagaactag  aaaaaaaaaat  agtgactgcc  acggtgaata  attcagttct
1081 tcaaaagcag  caacatgatc  tcatggagac  agttaataac  ttactgacta  tgatgtccac
1141 atcaaactca  gctaaggacc  ccactgttgc  taaagaagaa  caaatcagct  tcagagactg
1201 tgctgaagta  ttcaaatcag  gacacaccac  aaatggcatc  tacacgttaa  cattccctaa
1261 ttctacagaa  gagatcaagg  cctactgtga  catggaagct  ggaggaggcg  ggtggacaat
1321 tattcagcga  cgtgaggatg  gcagcgttga  ttttcagagg  acttggaag  aatataaagt
1381 gggatttggt  aacccttcag  gagaatattg  gctgggaaat  gagtttggtt  cgcaactgac
1441 taatcagcaa  cgctatgtgc  ttaaaataca  ccttaaagac  tgggaaggga  atgaggctta
1501 ctcatgtgat  gaacatttct  atctctcaag  tgaagaactc  aattatagga  ttcaccttaa
1561 aggacttaca  gggacagccg  gcaaaaataag  cagcatcagc  caaccaggaa  atgattttag
1621 cacaaaggat  ggagacaacg  acaaatgtat  ttgcaaatgt  tcacaaatgc  taacaggagg
1681 ctgggtgggtt  gatgcatgtg  gtccttccaa  cttgaacgga  atgtactatc  cacagaggca
1741 gaacacaaat  aagttcaacg  gcattaaatg  gtactactgg  aaaggctcag  gctattcgct
1801 caaggccaca  accatgatga  tccgaccagc  agatttctaa  acatcccagt  ccacctgagg
1861 aactgtctcg  aactattttc  aaagacttaa  gcccagtgca  ctgaaagtca  cggctgcgca
1921 ctgtgtcctc  ttccaccaca  gagggcgtgt  gctcgggtgt  gacgggaccc  acatgctcca
1981 gattagagcc  tgtaaaacttt  atcacttaaa  cttgcatcac  ttaacggacc  aaagcaagac
2041 cctaaacatc  cataattgtg  attagacaga  acacctatgc  aaagatgaac  ccgaggctga
2101 gaatcagact  gacagtttac  agacgctgct  gtcacaacca  agaattgtat  gtgcaagttt
2161 atcagtaaat  aactggaaaa  cagaacactt  atgttataca  atacagatca  tcttggaact
2221 gcattcttct  gagcactgtt  tatacactgt  gtaaataccc  atatgtcct (SEQ ID

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NO:103)

FIGURE 55A

94/115

Tie2 ligand2 (NM_001147)

MWQIVFFTLSCDLVLAAAYNNFRKSMDSIGKKQYQVQHGSCSYT
FLLPEMDNCRSSSSPYVSNAVQRDAPLEYDDSVQRLQVLENIMENNTQWLMKLENYIQ
DNMKKEMVEIQQNAVQNQTAVMIEIGTNLLNQTAEQTRKLT DVEAQVLNQTTRELEQL
LEHSLSTNKLEKQILDQTSEINKLQDKNSFLEKKVLAMEDKHIIQLQSIKEEKDQLQV
LVSKQNSIIEELEKKIVTATVNNSVLQKQQHDLMETVNNLLTMMSTSNSAKDPTVAKE
EQISFRDCAEVFKSGHTTNGIYTLTFPNSTEEIKAYCDMEAGGGGWTIIQRREDGSVD
FQRTWKEYKVGFGNPSGEYWLGNFVSQLTNQQRVVLKIHLKDWEAGNEAYSLYEHFYL
SSEELNYRIHLKGLTGTAGKISSISQPGNDFSTKGDNDKCICKCSQMLTGGWWFDAC
GPSNLNGMYYPQRQNTNKFNGIKWYYWKSGSYSLKATTMMIRPADF (SEQ ID NO:104)

FIGURE 55B

95/115

VEGFC (NM_005429)

```

1  cggggaaggg gagggaggag ggggacgagg gctctggcgg gtttgagggg gctgaacatc
61  gcgggggtgtt ctggtgtccc ccgccccgcc tctccaaaaa gctacaccga cgcggaccgc
121  ggcggcgctcc tccctcgccc tcgcttcacc tcgcggggtc cgaatgcggg gagctcggat
181  gtccgggtttc ctgtgaggct tttacctgac acccgccgcc tttccccggc actggctggg
241  agggcgccct gcaaagttag gaacgcggag ccccggaacc gctcccgccg cctccggctc
301  gcccaggggg ggtcgccggg aggagcccg gggagaggga ccaggagggg cccgcggcct
361  cgcaggggcg cccgcgcccc caccctgcc cccgcagcg gaccggtccc ccacccccgg
421  tccttccacc atgcacttgc tgggcttctt ctctgtggcg tgttctctgc tcgccgctgc
481  gctgctcccg ggtcctcgcg aggcgccgc cgccgcgcgc gccttcgagt ccggactcga
541  cctctcggac gggagagccg acgcgggcca ggccacggct tatgcaagca aagatctgga
601  ggagcagtta cggctctgtg ccagtgtaga tgaactcatg actgtactct acccagaata
661  ttggaaaatg tacaagtgtc agctaaggaa aggaggctgg caacataaca gagaacaggc
721  caacctcaac tcaaggacag aagagactat aaaatttgct gcagcacatt ataatacaga
781  gatcttgaaa agtattgata atgagtggag aaagactcaa tgcattgccac gggaggtgtg
841  tatagatgtg gggaaaggag ttggagtgcg gacaaacacc ttctttaaac ctccatgtgt
901  gtccgtctac agatgtgggg gttgtgcaa tagtgagggg ctgcagtgca tgaacaccag
961  cacgagctac ctcagcaaga cgttatttga aattacagtg cctctctctc aaggcccaa
1021  accagtaaca atcagttttg ccaatcacac ttccctgccg tgcattgtct aactggatgt
1081  ttacagacaa gttcattcca ttattagacg ttccctgccg gcaacactac cacagtgtca
1141  ggcagcgaac aagacctgcc ccaccaatta catgtggaat aatcacatct gcagatgcct
1201  ggctcaggaa gattttatgt tttcctcgga tgctggagat gactcaacag atggattcca
1261  tgacatctgt ggaccaaaca aggagctgga tgaagagacc tgcagtgtg tctgcagagc
1321  ggggcttcgg cctgccagct gtggaccca caaagaacta gacagaaact catgccagt
1381  tgtctgtaaa aacaaactct tccccagcca atgtggggcc aaccgagaat ttgatgaaaa
1441  cacatgccag tgtgtatgta aaagaacctg cccagaaat caaccctaa atcctggaaa
1501  atgtgcctgt gaatgtacag aaagtccaca gaaatgcttg ttaaaaggaa agaagttcca
1561  ccaccaaaca tgcagctgtt acagacggcc atgtacgaac cgccagaagg cttgtgagcc
1621  aggattttca tatagtgaag aagtgtgtcg ttgtgtccct tcatattgga aaagaccaca
1681  aatgagctaa gattgtactg ttttccagtt catcgatttt ctattatgga aaactgtgtt
1741  gccacagtag aactgtctgt gaacagagag acccttgtgg gtccatgcta acaaagacaa
1801  aagtctgtct ttcctgaacc atgtggataa ctttacagaa atggactgga gctcatctgc
1861  aaaaggcctc ttgtaaagac tggttttctg ccaatgacca aacagccaag attttcctct
1921  tgtgatttct ttaaaagaat gactatataa tttatttcca ctaaaaatat tgtttctgca
1981  ttcattttta tagcaacaac aattggtaaa actcactgtg atcaatattt ttatatcatg
2041  caaaatatgt ttaaaataaa atgaaaattg tattat (SEQ ID NO:105)

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FIGURE 56A

96/115

VEGFC (NM_005429)

MHLLGFFSVACSLLAALLPGPREAPAAAAAFESGLDLSDAEPD
AGEATAYASKDLEEQLRSVSSVDELMTVLYPEYWKMVKCQLRKGGWQHNREQANLSR
TEETIKFAAAHYNTEILKSIDNEWKRTQCMPREVCIDVGKEFGVATNTFFKPPCVSVY
RCGGCCNSEGLQCMNTSTSYLSKTLFEITVPLSQGPKPVTISFANHTSCRCMSKLDVY
RQVHSIIIRSLPATLPQCQAANKTCPTNYMWNHICRCLAQEDFMFSSDAGDDSTDGF
HDICGPNKELDEETCQCVCRAGLRPASCGPHKELDRNSCQCVCKNKLFPSCGANREF
DENTCQCVCCKRTCPRNQPLNPGKCACECTESPQKCLLKGGKFHHQTCSCYRRPCTNRQ
KACEPGFSYSEEVCRVPSYWKRPMQMS (SEQ ID NO:106)

FIGURE 56B

97/115

tPA (NM_000930)

```

1  atggccctgt  ccactgagca  tcctccccgc  acacagaaac  ccgcccagcc  ggggccaccg
61  accccacccc  ctgcctggaa  acttaaggag  gccggagctg  tggggagctc  agagctgaga
121  tcctacagga  gtccagggct  ggagagaaaa  cctctgcgag  gaaagggaa  gagcaagccg
181  tgaatttaag  ggacgctgtg  aagcaatcat  ggatgcaatg  aagagagggc  tctgctgtgt
241  gctgctgctg  tgtggagcag  tcttcgtttc  gccagccag  gaaatccatg  cccgattcag
301  aagaggagcc  agatcttacc  aagtgatctg  cagagatgaa  aaaacgcaga  tgatatacca
361  gcaacatcag  tcatggctgc  gccctgtgct  cagaagcaac  cgggtggaat  attgctgggtg
421  caacagtggc  agggcacagt  gccactcagt  gcctgtcaaa  agttgcagcg  agccaagggtg
481  tttcaacggg  ggcacctgcc  agcaggccct  gtactttctc  gatttcgtgt  gccagtgcc
541  cgaaggattt  gctgggaagt  gctgtgaaat  agataccagg  gccacgtgct  acgaggacca
601  gggcatcagc  tacaggggca  cgtggagcac  agcggagagt  ggcgcagagt  gcaccaactg
661  gaacagcagc  gcgttggccc  agaagcccta  cagcgggcgg  aggccagacg  ccatcaggct
721  gggcctgggg  aaccacaact  actgcagaaa  cccagatcga  gactcaaagc  cctggtgcta
781  cgtctttaag  gcggggaagt  acagctcaga  gttctgcagc  acccctgcct  gctctgaggg
841  aaacagtgac  tgetactttg  ggaatgggtc  agcctaccgt  ggcacgcaca  gcctcaccga
901  gtcgggtgcc  tctgcctcc  cgtggaattc  cagatcctg  ataggcaagg  tttacacagc
961  acagaacccc  agtgcccagg  cactgggcct  gggcaaacat  aattactgcc  ggaatcctga
1021  tggggatgcc  aagccctgg  gccacgtgct  gaagaaccgc  aggctgacgt  gggagtactg
1081  tgatgtgccc  tctgtctcca  cctgcggcct  gagacagtac  agccagcctc  agtttcgcat
1141  caaaggaggg  ctcttcgccg  acatgcctc  ccaccctgg  caggctgcca  tctttgccaa
1201  gcacaggagg  tcgcccggag  agcggttcct  gtgcgggggc  atactcatca  gctcctgctg
1261  gattctctct  gccgcccact  gcttccagga  gaggtttccg  ccccaccacc  tgacggtgat
1321  cttgggcaga  acataccggg  tggtccttg  cgaggaggag  cagaaatttg  aagtcgaaaa
1381  atacattgtc  cataaggaat  tcgatgatga  cacttacgac  aatgacattg  cgctgctgca
1441  tctgaaatcg  gattcgctcc  gctgtgccc  ggagagcagc  gtggtccgca  ctgtgtgctc
1501  tccccggcg  gacctgcagc  tgccggactg  gacggagtgt  gagctctccg  gctacggcaa
1561  gcatgaggcc  ttgtctcctt  tctattcgga  gcggctgaag  gaggtctcat  tcagactgta
1621  cccatccagc  cgctgcacat  cacaacattt  acttaacaga  acagtcaccg  acaacatgct
1681  gtgtgctgga  gacactcgga  gcggcggggc  ccaggcaaac  ttgcacgacg  cctgccaggg
1741  cgattcggga  ggccccctgg  tgtgtctgaa  cgatggccgc  atgactttgg  tgggcatcat
1801  cagctggggc  ctgggctgtg  gacagaagga  tgtcccgggt  gtgtacacca  aggttaccaa
1861  ctacctagac  tggattcgtg  acaacatgcg  accgtgacca  ggaacacccg  actcctcaaa
1921  agcaaattag  atcccgctc  ttcttcttca  gaagacactg  caaaggcgca  gtgcttctct
1981  acagacttct  ccagaccac  cacaccgag  aagcgggacg  agacctaca  ggagagggaa
2041  gagtgcattt  tcccagatac  tttccatttt  ggaagttttc  aggaacttgg  ctgatttcag
2101  gatactctgt  cagatgggaa  gacatgaatg  cacactagcc  tctccaggaa  tgctcctcc
2161  ctgggcagaa  agtggccatg  ccaccctgtt  ttcagctaaa  gcccacctc  ctgacctgtc
2221  accgtgagca  gctttggaaa  caggaccaca  aaaatgaaag  catgtctcaa  tagtaaaaga
2281  taacaagatc  tttcaggaaa  gacggattgc  attagaaata  gacagtatat  ttatagtcac
2341  aagagcccag  cagggcctca  aagttggggc  aggctggctg  gcccgctcat  ttcctcaaaa
2401  gcaccttga  cgtcaagtct  ccttcccctt  tccccactcc  ctggctctca  gaaggatttc
2461  cttttgtgta  cagtgtgtaa  agtgtaaatc  ctttttcttt  ataaacttta  gagtagcatg
2521  agagaattgt  atcatttgaa  caactaggct  tcagcatatt  tatagcaatc  catgttagtt
2581  tttactttct  gttgccacaa  ccctgtttta  tactgtactt  aataaattca  gatataattt
2641  tcacagtttt  tcc (SEQ ID NO:107)

```

FIGURE 57A

98/115

tPA (NM_000930)

MDAMKRGLCCVLLLCGAVFVSPSQEIHARFRRGARSYQVICRDE
KTQMIYQQHQSWLRPVLRNVEYCWNSGRAQCHSVPVKSCSEPRCFNGGTCQQALY
FSDFVCQCPEGFAGKCCEIDTRATCYEDQGISYRGTWSTAESGAECTNWNSSALAQKP
YSGRRPDAIRLGLGNHNYCRNPDRDSKPWCYVFKAGKYSSEFCSTPACSEGNSDCYFG
NGSAYRGTHSLTESGASCLPWNSMILIGKVYTAQNPSAQALGLGKHNYCRNPDGDAKP
WCHVLKNRRLTWEYCDVPSCSTCGLRQYSQPQFRIKGGLFADIASHPWQAAIFAKHRR
SPGERFLCGGILISSCWILSAAHCFQERFPPHHLTVILGRTYRVVPGEEEQKFEVEKY
IVHKEFDDDTYDNDIALQLKSDSSRCAQESSVVRTVCLPPADLQLPDWTECELSGYG
KHEALSPFYSERLKEAHVRLYPSSRCTSQHLLNRTVTDNMLCAGDTRSGGPQANLHDA
CQGDSSGGPLVCLNDGRMTLVGIIISWGLGCGQKDVPGVYTKVTNYLDWIRDNMRP (SEQ ID NO:108)

FIGURE 57B

99/115

Thrombomodulin (NM_000361)

```

1  cttgcaatcc aggttttctc tggaagtggc tgtaacatgt atgaaaagaa agaaaggagg
61  accaagagat gaaagagggc tgcacgcgtg ggggcccagag tgggtgggcgg ggacagtcgt
121 cttgtttacag ggggtgctggc cttccctggc gcctgcccct gtcggcccccg cccgagaacc
181 tccctgcgcc agggcagggg ttactcatcc cggcgagggtg atcccatgcg cgaggggcggg
241 cgcaagggcg gccagagaaac ccagcaatcc gagtatgcgg catcagccct tcccaccagg
301 cacttccttc cttttcccga acgtccaggg agggagggcc gggcacttat aaactcgagc
361 cctggccgat ccgcagtca gaggtgcct cgcaggggct gcgcgcacgg caagaagtgt
421 ctgggctggg acggacagga gaggtgtcg ccacggcgt cctgtgccc tctgctccgg
481 cacggccctg tcgcagtgcc cgcgctttcc ccggcgccctg cacgcggcgc gcctgggtaa
541 catgcttggg gtccctgggtc ttggcgcgct ggccctggcc ggccctgggt tccccgcacc
601 cgcagagccg cagccgggtg gcagccagtg cgtcgagcac gactgcttcg cgctctaccc
661 gggcccccgg accttcctca atgccagtca gatctgcgac ggactgcggg gccacctaat
721 gacagtgcgc tcctcgggtg ctgccgatgt catttccttg ctactgaacg gcgacggcgg
781 cgttggccgc cggcgccctc ggatcggcct gcagctgcc aacgggtgcg gcgaccccaa
841 gcgcctcggg cccctgcgcg gcttcagtg gggtacggga gacaacaaca ccagctatag
901 caggtgggca cggtcgcacc tcaatggggc tcccctctgc ggcccggtgt gcgtcgctgt
961 ctccgctgct gaggccactg tgcccagcga cccgatctgg gaggagcagc agtgcgaagt
1021 gaagggcgat ggcttcctct gcgagttcca cttcccagcc acctgcaggc cactgcgtgt
1081 ggagcccgcc gccgcggctg ccgccgtctc gatcacctac ggcaccccg tgcggcccg
1141 cggagcggac ttccaggcgc tgccggtggg cagctccgcc gcggtggctc ccctcggtt
1201 acagctaata tgcaccgcgc cggccggagc ggtccagggg cactgggcca gggaggcgcc
1261 gggcgcttgg gactgcagcg tggagaacgg cggctgcgag cacgcgtgca atgcgatccc
1321 tggggctccc cgctgccagt gccagccgg cgcgcacctg caggcagacg ggcgtcctc
1381 caccgcatcc gcgacgcagt cctgcaacga cctctgcgag caattctgcg ttcccaaccc
1441 cgaccagccg ggctcctact cgtgcatgtg cgagaccggc tacccgctgg cggccgacca
1501 acaccggtgc gaggacgtgg atgactgcat actggagccc agtccgtgtc tgctcatagg
1561 tgtcaacaca caggggtggc tcgagtcca ctgctaccct aactacgacc tgggtggacg
1621 cgagtgtgtg gagcccgtgg acccgtgctt cagagccaac tgcgagtacc agtgccagcc
1681 cctgaaccaa actagctacc tctgcgtctg cgccgagggc ttccgcacca ttccccacga
1741 gccgcacagg tgccagatgt tttgcaacca gactgcctgt ccagccgact gcgaccccaa
1801 caccagggct agctgtgagt gccctgaagg ctacatcctg gacgacgggt tcatctgcac
1861 ggacatcgac gagtgcgaaa acggcgggct ctgctccggg gtgtgccaca acctccccgg
1921 taccttcgag tgcactcgcg ggcccgaact ggcccttgcc cgccacattg gcaccgactg
1981 tgactccggc aaggtggacg gtggcgacag cggctctggc gagcccccgc ccagcccagc
2041 gcccggtccc accttgactc ctccggccgt ggggctcgtg cattcgggct tgctcatagg
2101 catctccatc gcgagcctgt gcctgggtgt ggcgcttttg gcgctcctct gccacctgcg
2161 caagaagcag ggcgcgcgca gggccaagat ggagtacaag tgcgcggccc cttccaagga
2221 ggtagtgtct cagcacgtgc ggaccgagcg gacgcgcgag agactctgag cggcctccgt
2281 ccaggagcct ggctccgctc aggagctgtg cctcctcacc cccagctttg ctaccaaagc
2341 accttagctg gcattacagc tggagaagac cctccccgca ccccccaagc tgttttcttc
2401 tattccatgg ctaactggcg aggggggtgat tagagggagg agaatgagcc tcggcctctt
2461 ccgtgacgtc actggaccac tgggcaatga tggcaatttt gtaacgaaga cacagactgc
2521 gatttgtccc aggtcctcac taccgggcgc aggaggggtg gcgttattgg tcggcagcct
2581 tctgggcaga ccttgacctc gtgggctagg gatgactaaa atatttattt tttttaagta
2641 tttaggtttt tgtttgtttc ctttgttctt acctgtatgt ctccagtatc cactttgcac
2701 agctctccgg tctctctctc ttacaaaact cccacttgct atgtgacagg taaactatct
2761 tggatgaattt ttttttctta gccctctcac atttatgaag caagccccac ttattcccca
2821 ttcttctctag ttttctctc ccaggaactg ggccaactca cctgagtcac cctacctgtg
2881 cctgacccta cttctttttg tcatctagct gtctgctcag acagaacccc tacatgaaac
2941 agaaacaaaa aactaaaaa taaaaatggc catttgcttt ttaccagat ttgctaattt
3001 atcctgaaat ttcagattcc cagagcaaaa taatttttaa caaaggggtg agatgtaaaa
3061 ggtattaaat tgatgttgct ggactgtcat agaaattaca ccaaagagg tatttatctt
3121 tactttttaa cagtgcgact gaattttgtt cttgttttga tttgtactga aaaatggtaa
3181 ttgttgctaa tcttcttatg caatttcctt tttgttatt attacttatt tttgacagt
3241 ttgaaaatgt tcagaagggt gctctagatt gagagaagag acaaacacct cccaggagac
3301 agttcaagaa agcttcaaac tgcattgatt atgccaatta gcaattgact gtcactgttc

```

FIGURE 58A

100/115

```
3361 cttgtcactg gtagaccaaa ataaaaccag ctctactggg cttgtggaat tgggagcttg
3421 ggaatggatc ctggaggatg cccaattagg gcctagcctt aatcagggtcc tcagagaatt
3481 tctaccattt cagagaggcc ttttggaatg tggccctga acaagaattg gaagctgccc
3541 tgcccatggg agctgggttag aaatgcagaa tcctaggctc caccatcc agttcatgag
3601 aatctatat taacaagatc tgcagggggg gtgtctgctc agtaatttga ggacaaccat
3661 tccagactgc ttccaatttt ctggaatata tgaaatatag atcagttata agtagcaggc
3721 caagtcaggc ccttattttt aagaaactga ggaattttct ttgtgtagct ttgctctttg
3781 gtagaaaagg ctaggtacac agctctagac actgccacac aggggtctgca aggtctttgg
3841 ttcagctaag ctaggaatga aatcctgctt cagtgtatgg aaataaatgt atcatagaaa
3901 tgtaactttt gtaagacaaa ggttttcctc ttctattttg taaactcaaa atatttgtac
3961 atagttattt atttattgga gataatctag aacacaggca aaatccttgc ttatgacatc
4021 acttgtacaa aataaacaaa taacaatgtg (SEQ ID NO:109)
```

FIGURE 58B

101/115

Thrombomodulin (NM_000361)

MLGVLVLGALALAGLGFPAPAEPQPGGSQCVEHDCFALYPGPAT
FLNASQICDGLRGHLMTVRSSVAADVISLLLNGDGGVGRRRLWIGLQLPPGCGDPKRL
GPLRGFQWVTGDNNTSYSRWARLDLNGAPLCGPLCVAVSAAEATVPSEPIWEEQQCEV
KADGFLCEFHFPAFCRPLAVEPGAAAAAVSITYGTPFAARGADFQALPVGSSAAVAPL
GLQLMCTAPPGAVQGHWAREAPGAWDCSVENGGEHACNAIPGAPRCQCPAGAALQAD
GRSCTASATQSCNDLCEHFVCPNPDQPGSYSCMCETGYRLAADQHRCEDVDDCILEPS
PCPQRCVNTQGGFECHCYPNYDLVDGECVEPVDPFRANCEYQCQPLNQTSYLCVCAE
GFAPIPHEPHRCQMFCNQATACPADCDPNTQASCECPEGYILDDGFICTDIDECENGGF
CSGVCHNLPGTFCICGPDSSALARHIGTDCDSGKVDGGDSGSGEPPPSPTPGSTLTTP
AVGLVHSGLLIGISIASLCLVALLALLCHLRKKQGAARAKMEYKCAAPSKEVVLQHV
RTERTPQRL (SEQ ID NO:110)

FIGURE 58C

102/115

TF (NM_001993)

```

1  aagactgcga gctccccgca cccctctgca ctccctcttg cgggccagg ggccttcag
61  cccaacctcc ccagccccac gggcgccacg gaacctcgct gatctcgcc ccaactggta
121 gacatggaga cccctgcctg gccccgggtc ccgcgccccg agaccgccgt cgctcggacg
181 ctctgctcg gctgggtctt cgcccagggt gccggcgctt caggcactac aaatactgtg
241 gcagcatata atttaacttg gaaatcaact aatttcaaga caattttgga gtgggaaccc
301 aaaccctgca atcaagtcta cactgttcaa ataagcacta agtcaggaga ttggaaaagc
361 aaatgctttt acacaacaga cacagagtgt gacctcaccg acgagattgt gaaggatgtg
421 aagcagacgt acttggcacg ggtcttctcc taccggcgag ggaatgtgga gagcaccggt
481 tctgctgggg agcctctgta tgagaactcc ccagagttca caccttacct ggagacaaac
541 ctcgacagc caacaattca gagttttgaa cagggtggaa caaaagttaa tgtgaccgta
601 gaagatgaac ggactttagt cagaaggaac aacactttcc taagcctccg ggatgttttt
661 ggcaaggact taatttatat actttattat tggaaatctt caagttcagg aaagaaaaca
721 gccaaaacaa acactaatga gtttttgatt gatgtggata aaggagaaaa ctactgtttc
781 agtgttcaag cagtgattcc ctcccgaaca gttaaccgga agagtacaga cagcccggtg
841 gagtgtatgg gccaggagaa aggggaattc agagaaatat tctacatcat tggagctgtg
901 gtatttgtgg tcatcatcct tgtcatcatc ctggctatat ctctacacaa gtgtagaaag
961 gcaggagtgg ggcagagctg gaaggagaac tccccactga atgtttcata aaggaagcac
1021 tggtggagct actgcaaatg ctatattgca ctgtgaccga gaacttttaa gaggatagaa
1081 tacatggaaa cgcaaatgag tatttcggag catgaagacc ctggagttca aaaaactctt
1141 gatatgacct gttattacca ttagcattct ggttttgaca tcagcattag tcactttgaa
1201 atgtaacgaa tgggtactaca accaattcca agttttaatt tttaacacca tggcaccttt
1261 tgcacataac atgctttaga ttatatattc cgcacttaag gattaaccag gtcgtccaag
1321 caaaaacaaa tgggaaaatg tcttaaaaaa tcctgggtgg acttttgaaa agcttttttt
1381 tttttttttt tttgagacgg agtcttgctc tggtgccag gctggagtgc agtagcacga
1441 tctcggtcca cttgcaccct ccgtctctcg ggttcaagca attgtctgcc tcagcctccc
1501 gagtagctgg gattacaggt gcgcactacc acgccaagct aatttttgta ttttttagta
1561 gagatggggg ttcaccatct tggccaggct ggtcttgaat tcctgacctc agtgatccac
1621 ccaccttggc ctcccaaaga tgctagtatt atgggcgtga accaccatgc ccagccgaaa
1681 agcttttgag gggctgactt caatccatgt aggaaagtaa aatgggaagga aattgggtgc
1741 atttctagga cttttctaac atatgtctat aatatagtgt ttaggttctt ttttttttca
1801 ggaatacatt tggaaattca aaacaattgg gcaaaccttg tattaatgtg ttaagtgcag
1861 gagacattgg tattctgggc agcttcctaa tatgctttac aatctgcact ttaactgact
1921 taagtggcat taaacatttg agagctaact atatttttat aagactacta taaaacttac
1981 agagtttatg atttaaggta cttaaagctt ctatggttga cattgtatat ataatttttt
2041 aaaaagggtt ttctatatgg ggattttcta tttatgtagg taatattgtt ctatttgtat
2101 atattgagat aatttattta atatacttta aataaagggt actgggaatt gtt (SEQ ID
NO:111)

```

FIGURE 59A

103/115

TF (NM_001993)

METPAWPRVPRPETAVARTLLLGWVFAQVAGASGTTNTVAAYNL
TWKSTNFKTILEWEPKPVNQVYTVQISTKSGDWKSKCFYTTDTECDLTDEIVKDVKQT
YLARVFSYPAGNVESTGSAGEPLYENSPEFTPYLETNLGQPTIQSFEQVGTKVNVTV
DERTLVRRNNTFLSLRDVFGKDLIYTLYYWKSSSSGKKTAKTNTNEFLIDVDKGENYC
FSVQAVIPSRTVNRKSTDSPVECMGQEKGEFREIFYIIGAVVFVVIILVIILAI
SLHK
CRKAGVGQSWKENSPLNVS (SEQ ID NO:112)

FIGURE 59B

104/115

GPR4 (NM_005282)

```

1  ctggtgacct taettatctc tgttgctttc tggggtccta ggaaatgcc a gactcccac
61 ccacattgcc tgaactttcc aacactccct agctgcgctg tgtcctatct caacacttcc
121 tcatgtatatt cttgtgtctt ctagaacatt cccccgcat tattacttca atatggctac
181 acatacttcc taattgccct gcaaaccatc tccttctcac cattgcccag cgatgctttc
241 gtctcctcca taaacactcc cggagaccaa tttttgtgtc accccatac tccctcgttg
301 acacactgac tccatacata acctccttga aaaacctctt tattaatctc accatcctcc
361 agacttccct cctgtcataa ttccatccct cctccaactt tccctctca agctctgccc
421 ttcccagccc agcccagcct acccaacctc atctcttccc tgtagaccac atcccacat
481 gttcccctga gcctccaagg aaggggctca gggggcccca tggcctcccg ctccctgtgg
541 cccacagccc cccgtgggccc aggggaagcg cccagaagc cgaagtgcc accatgggca
601 accacacgtg ggagggtgc cacgtggact cgcgcgtgga ccacctctt ccgcatccc
661 tctacatctt tgtcatcggc gtggggctgc ccaccaactg cctggctctg tggcggcct
721 accgccaggt gcaacagcgc aacgagctgg gcgtctacct gatgaacctc agcatcgccg
781 acctgctgta catctgcacg ctgccgctgt ggggtggacta cttcctgcac cagcacaact
841 ggatccacgg ccccggttcc tgcaagctct ttgggttcat cttctacacc aatatctaca
901 tcagcatcgc cttcctgtgc tgcattctcg tggaccgcta cctggctgtg gccaccacc
961 tccgcttcgc ccgcttgcgc cgcgtcaaga ccgccgtggc cgtgagctcc gtggtctggg
1021 ccacggagct gggcgccaac tcggcgcccc tgttccatga cgagctcttc cgagaccgct
1081 acaaccacac cttctgcttt gagaagtccc ccatggaagg ctgggtggcc tggatgaacc
1141 tctatcgggt gttcgtgggc ttctcttccc cgtgggcgct catgtgctg tcgtaccggg
1201 gcatcctgcg ggccgtgcgg ggcagcgtgt ccaccgagcg ccaggagaag gccaaagatca
1261 agcggctggc cctcagcctc atcgccatcg tgctggtctg ctttgcgccc tatcacgtgc
1321 tcttgctgtc ccgcagcgcc atctacctgg gccgcccctg ggactgcggc ttcgaggagc
1381 gcgtcttttc tgcataccac agctcactgg ctttcaccag cctcaactgt gtggcgagc
1441 ccatcctcta ctgcctggtc aacgagggcg cccgcagcga tgtggccaag gccctgcaca
1501 acctgctccg ctttctggcc agcgacaagc cccaggagat ggccaatgcc tcgctcacc
1561 tggagacccc actcacctcc aagaggaaca gcacagccaa agccatgact ggcagctggg
1621 cggccactcc gccctcccag ggggaccagg tgcagctgaa gatgctgccc ccagcacaat
1681 gaaccccgag tggcacagaa tcccagttt tcccctctca tcccacagtc cttctctcc
1741 tggctctggt tatgcaaatt gtatggaaaa agggctgtgt taatattcat aagaatacaa
1801 gaacttagga agagtgaggt tgggtgtgtc ctggtcaacc tttgtgctcc cagatcccat
1861 cacagtttgg cgattgtgga gggcctcctg aaggaggaga tgagtaaata tatttttttg
1921 gagacagggc ctcaactgtg tgcccaggct ggagtgcagt agtgcagctg tggctcactg
1981 cagcctccac ctccctgggt ctccagcgat cttcccacat cagcctcccg agtagctggg
2041 accacaaatg tgagcccacc catgcctggc taatttttgt actttttgt taaatggagt
2101 ctactatgt ttccccaggc tgatcttgaa ctctgggct caagagatcc tcctgccttg
2161 gcctcccaaa gtgctcagat tagagatgtg agccgccatg tctggccaga taaattaagt
2221 caaacatttg gtttcagaa aataaagaca aatagagaag gttagatttt tttttttcca
2281 acaagtggat aaaagtctgt gactcggggg aaagtggaag gagaaatgca gccgatatag
2341 agtcattatg tttgcaaagc ccctggtcat acaggccagg gaacataaga ccgcaattct
2401 aagtttctag ataaacagcg atctccaagt caagactgag gatgaagagg gagaatgtca
2461 gaactcaagt gaagggcaat cagggcagac tgcctggagg agtgatgcca gaaggtttgg
2521 gaagaagggt tgggacaaga agaaagggt tttattcatt cattcaacag aggtttatgt
2581 agggcactgt gctgggtggg gctggggaca caacaatgac tgaggcagcc tggccttgcc
2641 ttcacagggc tcaccatata caagtaaata aaaaatatgt aatgtttgga attgct (SEQ

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ID NO:113)

FIGURE 60A

105/115

GPR4 (NM_005282)

MGNHTWEGCHVDSRVDHLFPPSLYIFVIGVGLPTNCLALWAAAYR
QVQQRNELGVYLMNLSIADLLYICTLPLWVDYFLHHDNWIHGPGSCKLFGFIFYTNIY
ISIAFLCCISVDRYLAVAHPLRFARLRRVKTAVAVSSVWATELGANSAPLFHDELF
DRYNHTFCFEKFPMEGWVAMNLYRVFVGFLFPWALMLLSYRGILRAVRGSVSTERQE
KAKIKRLALSLIAIVLVCFAPYHVLLLSRSAIYLGRPWDGFEERVFSAYHSSLAFTS
LNCVADPILYCLVNEGARS DVAKALHNLLRFLASDKPQEMANASLTLETPLTSKRNST
AKAMTGSWAATPPSQGDQVQLKMLPPAQ (SEQ ID NO:114)

FIGURE 60B

106/115

GPR66 (NM_006056)

```

1  agcgggggggt  tcccggcccg  acaggcgggg  cgtcggggcg  cgggctgggg  ccgctgtcag
61  tcagtccact  ggctcccgcg  ccgcgtctgt  gtccgtcgct  cggagggtgg  aagccggggg
121  ctcgcgggcc  gcgggccgca  tgactcctct  ctgcctcaat  tgctctgtcc  tcctggaga
181  cctgtaccca  gggggtgcaa  ggaaccccat  ggcttgcaat  ggcagtgcgg  ccagggggca
241  ctttgaccct  gaggacttga  acctgactga  cgaggcactg  agactcaagt  acctggggcc
301  ccagcagaca  gagctgttca  tgcccatctg  tgccacatac  ctgctgatct  tcgtggtggg
361  cgctgtgggc  aatgggctga  cctgtctggt  catcctgcgc  cacaaggcca  tgcgcacgcc
421  taccaactac  tacctcttca  gcctggccgt  gtcggacctg  ctggtgctgc  ttggtggcct
481  gcccctggag  ctctatgaga  tgtggcacia  ctacccttcc  ctgctgggcg  ttggtggctg
541  ctatttccgc  acgctactgt  ttgagatggt  ctgcctggcc  tcagtgtcca  acgtcactgc
601  cctgagcgtg  gaacgctatg  tggccgtggt  gcaccactc  caggccaggt  ccatggtgac
661  gcggggccat  gtgcgcgag  tgcttggggc  cgtctggggg  cttgccatgc  tctgtccct
721  gcccacacc  agcctgcacg  gcatccagca  gctgcacgtg  cctgcccggg  gccagtgcc
781  agactcagct  gtttgcatgc  tggtcggccc  acgggcccct  tacaacatgg  tagtgagac
841  caccgcgctg  ctcttcttct  gcctgcccat  ggccatcatg  agcgtgctct  acctgctcat
901  tgggctgcga  ctgcggcggg  agaggctgct  gctcatgcag  gaggccaagg  gcaggggctc
961  tgcagcagcc  aggtccagat  acacctgcag  gctccagcag  cacgatcggg  gccggagaca
1021  atgtagcaag  atgctgtttg  tcctggtcgt  ggtgtttggc  atctgctggg  ccccggtcca
1081  cgccgaccgc  gtcagtgtga  gcctcgtgtc  acagtggaca  gatggcctgc  acctggcctt
1141  ccagcacgtg  cacgtcatct  ccggcatctt  cttctacctg  ggctcggcgg  ccaaccccg
1201  gctctatagc  ctcatgtcca  gccgcttcg  agagaccttc  caggaggccc  tgtgcctcg
1261  ggcctgctgc  catgcctca  gacccgcca  cagctccac  agcctcagca  ggatgaccac
1321  aggcagcacc  ctgtgtgatg  tgggctccct  gggcagctgg  gtccaccccc  tggctgggaa
1381  cgatggccca  gagggcgagc  aagagaccga  tccatcctga  gtggagcctt  aaagtggctt
1441  cacctggagg  ggccagaggg  tcacctggag  ctggggagac  acatctgctt  tcctctgcag
1501  ggatccttca  cgtactgtcc  ctagtccagc  ctagaaattc  tgaccagcac  ctgagtttcc
1561  ctccagaggg  aacagcagga  ggagggatcc  ctgactgctg  aggactcaca  ctgaccagac
1621  gccacacctt  gtgcttctta  tctgtccact  gccactcccc  cagttcaaatt  ccttaccttg
1681  cagaaatata  acagttagct  ggggctcagc  agtccctcct  ctggggactc  cctgccacca
1741  ctgccagttt  ctgaaacggg  cccactgggt  cctcactgtc  cttcccagtt  cctgttcagg
1801  ttctggcagg  ggcccaggga  tccaggggac  ctggttccaa  tctcagccct  gctgtacca
1861  ccttgtcatg  caccatcaag  catatcagtc  tacctttctt  tttttctgag  acagagtctc
1921  actctgtcgc  ccaggetaga  gtgcagtggc  gcgattttgg  ctcaactgcaa  cctccgcctc
1981  cgggggttcaa  gcgattctcc  tgctcagcc  tcccagttg  ctgggactac  aggtgagccc
2041  cagcatgccc  agctaatttt  ttttaatttt  tagtagagac  ggggtttcac  catgttggcc
2101  aggctggtct  caaactcttg  acctcaggtg  atccgccgac  ctcggcctcc  caaagtccct
2161  ggattacagg  catgagccac  cacaccgggc  caatcagtc  acctttctag  gccttggttc
2221  cttgcctgaa  aaatgaaaga  ggcgctggct  ttccacagtg  tcatgctttg  gcacttttag
2281  tatggttttc  tttctgtgtg  tgtgtaagcc  actgcttata  ataaaaccaa  caataccctc
2341  agactgaaag  ggcggaagtt  attatctgca  tctttatcaa  ccccaagccc  cacttctctc
2401  ctgacctccc  catgccctcc  ccagcctctc  ccagcacaag  tggggcaaaag  ccagcatgca
2461  agcagacccc  accaccacag  cccacctccg  tcctcacata  cgtgcaggct  ggctcgggag
2521  tccagtgagc  agagcattgg  acttggtgg  ccagagggtc  tctgagggtc  agagacatgg
2581  ccaaccaagg  gcaaggagtg  accctgtgga  gggttctgcc  gaactcaatg  cagtgagaag
2641  agggacaggg  acaagtagtc  cttgaaaactg  agccccattc  tgaatccctg  caggccaagt
2701  cattgctcag  ccaggactca  gttcatgggg  gaaacttgac  ctgctgcagt  ccctgagtct
2761  tgtcctcctg  agaggaagcc  ctggcttcca  aggtgggag  ctggaggatg  accttcggtc
2821  ggtctgtctg  ggttctccct  gcagacagct  tcctagctca  tgcccatagc  toatgctccc
2881  tgccgagaaa  gtggaggacg  tggtagaggg  ttgcagatgt  ttagttttaa  aaattcaatt
2941  ataaaaataa  taaatgctca  tgatagaaaa  tttggaaagt  gcaaataaagc  aaaaatgaaa
3001  acaattttta  aaatgtaaaa  cctctcttgc  cagggaatgg  ggggaaggga  agtgaggagt
3061  tctttaatgg  gtgaagagtt  tcagttttgc  aaaatgaaaa  agttctggag  atcagttgtg
3121  caacaatatg  aatatacata  acaatactga  actatacact  gaaatgggta  agatggtaca
3181  ttttatgtta  tgtgtatttt  accacaattt  ttataaaaaag  aggattaaat  ctaaaggaaa
3241  gaaaaaatta  aaaccaccca  taactttact  ctgaagcagt  aacagtggca  tgtttcctcc
3301  taaaaaaaaa  aaaaaaaaaa  gaagaaaaaa  aaataaagaa  aaaaaaaaaa  aaaa (SEQ ID

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NO:115)

FIGURE 61A

107/115

GPR66 (NM_006056)

MTPLCLNCSVLPGLDLYPGGARNPMACNGSAARGHFDPEDLNLT
EALRLKYLGPQQTELFMPICATYLLIFVVGAVGNGLTCLVILRHKAMRTPTNYLFS
AVSDLLVLLVGLPLELYEMWHNYPFLLGVGGCYFRTLLFEMVCLASVLNVTALSVERY
VAVVHPLQARSMVTRAHVRRVLGAVWGLAMLCSLPNTSLHGIQQLHVPCRGVPVDSAV
CMLVRPRALYNMVVQTTALLFFCLPMAIMSVLYLLIGLRLRRERLLLMQEAKGRGSAA
ARSRYTCRLQQHDRGRRQVTKMLFVLVVVFGICWAPFHADRVMSVVSQWTDGLHLAF
QHVHVISGIFFYLGSAANPVLYSLMSSRFRETQFQALCLGACCHRLRPRHSSHLSRM
TTGSTLCDVGSLGSWVHPLAGNDGPEAQQETDPS (SEQ ID NO:116)

FIGURE 61B

108/115
SLC22A2 (NM_003058)

```

1  ctttgaagtc agctggacca aggaaaggcc ctgccctgaa ggctggtcac ttgcagaggt
61 aaactccctt ctttgacttc tggccagggt ttgtgctgag ctggctgcag ccgctctcag
121 cctcgctccg ggcacgtcgg gcagcctcgg gccctcctgc ctgcaggatc atgccacca
181 ccgtggacga tgtcctggag catggagggg agtttcactt tttccagaag caaatgtttt
241 tcctcttggc tctgctctcg gctaccttcg cgcccatcta cgtgggcatc gtcttcttgg
301 gcttcacccc tgaccaccgc tgccggagcc ccggagtggc cgagctgagt ctgcgctgcg
361 gctggagtcg tgcagaggaa ctgaactaca cggtgccggg ccaggacctt gcgggcgaag
421 cctccccaag acagtgtagg cgctacgagg tggactggaa ccagagcacc ttcgactgcg
481 tggacccctt ggccagcctg gacaccaaca ggagccgcct gccactgggc ccttgccggg
541 acggctgggt gtacgagacg cctggctcgt ccatcgtcac cgagttaaac ctggtatgtg
601 ccaactcctg gatgttgga cttattccagt catcagtga ttaggattc tttattggct
661 ctatgagtat cggctacata gcagacaggt ttggccgtaa gctctgcctc ctaactacag
721 tcctcataaa tgctgcagct ggagtcttca tggccatttc cccaacctat acgtggatgt
781 taatttttcg cttaatccaa ggactggcca gcaaagcagg ctgggttaata ggctacatcc
841 tgattacaga atttgttggg cggagatata ggagaacagt ggggattttt taccaagttg
901 cctatacagt tgggctcctg gtgctagctg ggggtggctta cgcacttcct cactggaggt
961 ggttgcagtt cacagttgct ctgcccaact tcttcttctt gctctattac tgggtgcatac
1021 ctgagtcctc cagggtggctg atctcccaga ataagaatgc tgaagccatg agaatcatta
1081 agcacatcgc aaagaaaaat ggaaaatctc taccgcctc ccttcagcgc ctgagacttg
1141 aagaggaaac tggcaagaaa ttgaaccctt catttcttga cttggtcaga actcctcaga
1201 taaggaaaca tactatgata ttgatgtaca actgggtcac gagctctgtg ctctaccagg
1261 gcctcatcat gcacatgggc cttgcagggtg acaatatcta cctggatttc ttctactctg
1321 ccctggttga attcccagct gccttcatga tcatcctcac catcgaccgc atcggacgcc
1381 gttacccttg ggctgcatca aatatggttg caggggcagc ctgtctggcc tcagttttta
1441 tacctggtga tctacaatgg ctaaaaatta ttatctcatg cttgggaaga atggggatca
1501 caatggccta tgagatagtc tgccctggtca atgctgagct gtacccaca ttcattagga
1561 atcttggcgt ccacatctgt tctcaatgt gtgacattgg tggcatcatc acgccattcc
1621 tgggtctaccg gctcactaac atctggcttg agctcccgct gatggttttc ggcgtgcttg
1681 gcttgggtgc tggaggtctg gtgctgttgc ttccagaaac taaagggaaa gctttgcctg
1741 agaccatcga ggaagccgaa aatatgcaaa gaccaagaaa aaataaagaa aagatgattt
1801 acctccaagt tcagaaacta gacattccat tgaactaaga agagagaccg ttgctgctgt
1861 catgacctag ctttgatggc agcaagacca aaagtagaaa tcctgcact catcaciaag
1921 ccatacaaac tcaaccaaac ttacccttga gccctatcaa cctaggtcta cagccagtgg
1981 agtctattgt acactgtgga aaaataccca tgggaccaga tctgccaaa ttctccagc
2041 tcactttatt ctcagcattc ctaggacatt ggacattggt tttctggagg gttttttttc
2101 catctttgta tttttttaaa tttgattctt ttctttgcaa tgctatctaa ccagaatata
2161 taggggaact gtgggctagg caaacaaaat agaaaaaagt gtgaaaaaca gtaaagtggg
2221 gagaggagca tctattttct taaagaaata aaacacccaa aacaatataa agttgtccag
2281 aatgtatgtc aagaatttta gataggcctt tcagtaacac aggtgaagaa atttttaaaa
2341 atacattgat tattatctag gttagactta aagtgaatct caaataaaaag aatcaggaat
2401 acaacttaag tgatcatgag gtccttccat atttagattg ggtaagcatg aatgtgtatt
2461 ttctacaaaa gaccttgaga agagttcaat aaaaaatggt agcattataa aa (SEQ ID
NO: 117)

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FIGURE 62A

SLC22A2 (NM_003058)

MPTTVDDVLEHGGEFHFFQKQMFLLALLSATFAPIYVGIVFLG
FTPDHRCRSPGVAELSLRCGWSPAELNYTVPGPGPAGEASPRQCRRYEVDWNQSTFD
CVDPLASLDTNRSRLPLGPCRDGWVYETPGSSIVTEFNLVCANSWMLDLFQSSVNVGF
FIGSMSIGYIADRFRKLCLLTTVLINAAAGVLMASPTYTWMLIFRLIQGLVSKAGW
LIGYILITEFVGRRYRRTVGIFYQVAYTVGLLVLAGVAYALPHWRWLQFTVALPNFFF
LLYYWCIPESPRWLISQNKNAEAMRIIKHIAKKNKGKSLPASLQRLRLEEETGKKLNPS
FLDLVRTPQIRKHTMILMYNWFTSSVLYQGLIMHMGLAGDNIYLDFFYSALVEFPAAF
MIILTIDRIGRRYPWAASNMVAGAACLASVFIPGDLQWLKIIISCLGRMGITMAYEIV
CLVNAELYPTFIRNLGVHICSSMCDIGGIITPFLVYRLTNIWLELPLMVFGVLGLVAG
GLVLLLPEPKGKALPETIEEAENMQRPRKNKEKMIYLQVQKLDIPLN (SEQ ID NO:118)

FIGURE 62B

110/115

NLSN1 (NM_002420)

```

1 gccctggcca aggaggagcc tgaaagagcc tgagctgtgc cctctccatt ccactgctgt
61 ggcagggtca gaaatcttgg atagagaaaa ccttttgcaa acgggaatgt atctttgtaa
121 ttcctagcac gaaagactct aacagggtgt gctgtggcca gttcaccaac cagcatatcc
181 cccctctgcc aagtgcacaa cccagcaaaa atgaagagga aaacaaacag gtggagactc
241 agcctgagaa atggtctgtt gccaaagcaca cccagagcta cccaacagat tcctatggag
301 ttcttgaatt ccagggtggc ggatattcca ataaagccat gtatatccgt gtatcctatg
361 acaccaagcc agactcactg ctccatctca tggtgaaaga ttggcagctg gaactcccca
421 agctcttaat atctgtgcat ggaggcctcc agaactttga gatgcagccc aagctgaaac
481 aagtctttgg gaaaaggcctg atcaaggctg ctatgaccac cggggccttg atcttcaccg
541 ggggtgtcag cacagggtgt atcagccacg taggggatgc cttgaaagac cactcctcca
601 agtccagagg ccgggtttgt gctataggaa ttgctccatg gggcatcgtg gagaataagg
661 aagacctggt tggaaaggat gtaacaagag tgtaccagac catgtccaac cctctaagta
721 agctctctgt gctcaacaac tcccacaccc acttcatcct ggctgacaat ggcaccctgg
781 gcaagtatgg cgccgagggtg aagctgcgaa ggctgctgga aaagcacatc tcctccaga
841 agatcaacac aagactgggg cagggcgtgc ccctcgtggg tctcgtgggtg gagggggggc
901 ctaacgtggt gtccatcgtc ttggaatacc tgcaagaaga gcctcccatc cctgtggtga
961 tttgtgatgg cagcggacgt gcctcgaca tctgtcctt tgcgcacaag tactgtgaag
1021 aaggcggaat aataaatgag tccctcaggg agcagcttct agttaccatt cagaaaacat
1081 ttaattataa taaggcacia tcacatcagc tgtttgcaat tataatggag tgcataaga
1141 agaaagaact cgtcactgtg ttcagaatgg gttctgaggg ccagcaggac atcgagatgg
1201 caattttaac tgccttctgt aaaggaacaa acgtatctgc tccagatcag ctgagcttgg
1261 cactggcttg gaaccgctg gacatagcac gaagccagat ctttgtcttt gggccccact
1321 ggccgccccct gggaagcctg gcacccccga cggacagcaa agccacggag aaggagaaga
1381 agccacccat ggccaccacc aaggaggagaa gaggaagagg gaaaggcaag aagaaaggga
1441 aagtgaagaa ggaagtggag gaagaaactg acccccggaa gatagagctg ctgaactggg
1501 tgaatgcttt ggagcaagcg atgctagatg ctttagtctt agatcgtgtc gactttgtga
1561 agctctctgt tgaaaacgga gtgaacatgc aacactttct gaccattccg aggctggagg
1621 agctttataa cacaagactg ggtccaccaa acacacttca tctgctgggtg agggatgtga
1681 aaaagagcaa ccttccgcct gattaccaca tcagcctcat agacatcggg ctctgtctgg
1741 agtacctcat gggaggagcc taccgctgca actacactcg gaaaaacttt cggacccttt
1801 acaacaactt gtttggacca aagaggccta aagctcttaa acttctggga atggaagatg
1861 atgagcctcc agctaaaggg aagaaaaaaa aaaaaagaa aaaggaggaa gagatcgaca
1921 ttgatgtgga cgaccctgcc gtgagtcggt tccagtatcc cttccacgag ctgatggtgt
1981 gggcagtgtc gatgaaacgc cagaaaatgg cagtgttctt ctggcagcga ggggaagaga
2041 gcatggccaa ggcctgggtg gcctgcaagc tctacaaggc catggcccac gactcctccg
2101 agagtgatct ggtggatgac atctcccagg acttgataaa caattccaaa gacttcggcc
2161 agcttgcttt ggagttatta gaccagtcct ataagcatga cgagcagatc gctatgaaac
2221 tcttgaccta cgagctgaaa aactggagca actcgacctg cctcaaactg gccgtggcag
2281 ccaaaccacc ggacttcatt gctcacacct gcagccagat gctgctgacc gatatgtgga
2341 tgggaagact gcggatgcgg aagaaccccc gcctgaaggt tatcatgggg attcttctac
2401 cccccacat cttgtttttg gaatttcgca catatgatga tttctcgtat caaacatcca
2461 aggaaaacga ggatggcaaa gaaaaagaag aggaaaatac ggatgcaaat gcagatgctg
2521 gctcaagaaa gggggatgag gagaacgagc ataaaaaaca gagaagtatt cccatcgga
2581 caaagatctg tgaattctat aacgcgcccc ttgtcaagtt ctggttttac acaatatcat
2641 acttgggcta cctgctgctg tttaaactac tcatcctggt gcggatggat ggctggccgt
2701 ccctccagga gtggatcgtc atctcctaca tcgtgagcct ggcgttagag aagatacgag
2761 agatcctcat gtcagaacca ggcaaaactc gccagaaaat caaagtgttg cttcaggagt
2821 actggaacat cacagatctc gtggccattt ccacattcat gattggagca attcttcgcc
2881 tacagaacca gccctacatg ggctatggcc gggatgatcta ctgtgtggat atcatcttct
2941 ggtacatccg tgcctgggac atcttttggt tcaacaagta tctggggcca tacgtgatga
3001 tgattggaaa gatgatgatc gacatgctgt acttttggtt catcatgctg gtcgtgctca
3061 tgagtttcgg agtagccctc caagccattc tgcatccaga ggagaagccc tcttgaaac
3121 tggcccgaac catcttctac agccctact ggatgatcta tggagaggtg tggcagacc
3181 agatagacct ctacgccatg gaaattaatc ctcttgtgg tgagaaccta tatgatagg
3241 agggcaagcg gcttctctcc tgtatccccg gcgcctggct cactccagca ctcatggcgt
3301 gctatctact ggtcgccaac atcctgctgg tgaacctgct gattgctgtg ttcaacaata

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FIGURE 63A

111/115

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3361 ccttcttttga agtaaaatca atatccaacc aggtgtggaa gttccagcga tatcagctga
3421 ttatgacatt tcatgacagg ccagtcctgc cccaccgat gatcatttta agccacatct
3481 acatcatcat tatgcgtctc agcggccgct gcaggaaaaa gagagaaggg gaccaagagg
3541 aacgggatcg tggattgaag ctcttcctta gcgacgagga gctaaagagg ctgcatgagt
3601 tcgaggagca gtgcgtgcag gagcacttcc gggagaagga ggatgagcag cagtcgtcca
3661 gcgacgagcg catccgggtc acttctgaaa gagttgaaaa tatgtcaatg aggttggaag
3721 aaatcaatga aagagaaact tttatgaaaa cttccctgca gactgttgac ctcgacttg
3781 ctcagctaga agaattatct aacagaatgg tgaatgctct tgaaaatctt gcgggaatcg
3841 acaggtctga cctgatccag gcacgggtccc gggcttcttc tgaatgtgag gcaacgtatc
3901 ttctccggca aagcagcatc aatagcgtcg atggctacag cttgtatcga tatcatttta
3961 acggagaaga gttattatct gaggatacat ctctctccac gtcaccaggg acaggagtca
4021 ggaaaaaac ctgttccttc cgtataaagg aagagaagga cgtgaaaacg cacctagtcc
4081 cagaatgtca gaacagtctt cacctttcac tgggcacaag cacatcagca accccagatg
4141 gcagtcacct tgcagtagat gacttaaaga acgctgaaga gtcaaaaatta ggtccagata
4201 ttgggatttc aaaggaagat gatgaaagac agacagactc taaaaaagaa gaaactatct
4261 cccaagttt aaataaaaaca gatgtgatac atggacagga caaatcagat gtcaaaaaca
4321 ctcagctaac agtggaaacg acaaatatag aaggcactat ttcctatccc ctggaagaaa
4381 ccaaaattac acgctatttc cccgatgaaa cgatcaatgc ttgtaaaaa atgaagtcca
4441 gaagcttcgt ctattcccgg ggaagaaagc tggtcggtgg ggttaaccag gatgtagagt
4501 acagttcaat cacggaccag caattgacga cggaatggca atgccaagtt caaaagatca
4561 cgcgctctca tagcacagat attccttaca ttgtgtcgga agctgcagtg caagctgagc
4621 ataaagagca gtttgcagat atgcaagatg aacaccatgt cgctgaagca attcctcgaa
4681 tccctcgctt gtccctaacc attactgaca gaaatgggat ggaaaactta ctgtctgtga
4741 agccagatca aactttggga ttcccatctc tcaggtcaaa aagtttacat ggacatccta
4801 ggaatgtgaa atccattcag ggaaagttag acagatctgg acatgccagt agtgtaagca
4861 gcttagtaat tgtgtctgga atgacagcag aagaaaaaaa ggttaagaaa gagaaagctt
4921 ccacagaaac tgaatgctag tctgttttgt ttctttaatt ttttttttta acagtcagaa
4981 ccactaatgg gtgtcatctt ggccatctaa acatcatcaa tttctaaaaa cattttccct
5041 taaaaaattt tggaaattca gacttgattt acaatttaat gcactaaaag tagtattttg
5101 ttagcatatg ttagtaggct tagttttttc agttgcagta gtatcaaatg aaagtgatga
5161 tactgtaacg aagataaatt ggctaatacag tatacaagat tatacaatct ctttattact
5221 gagggccacc aaatagccta ggaagtgcc tgcagcactg aagtcaccat taggtcactt
5281 aagaagtaag caactagctg ggcacagtgg ctcatgcctg taatcctagc actttgggag
5341 gccaaaggcag aaagatagct tgagtccagg agtttgagac cagcctgggc aacatagtga
5401 taccatctct cttaaaaaaa aaaaaaaaaa a (SEQ ID NO:119)

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FIGURE 63B

112/115

NLSN1 (NM_002420)

MYIRVSYDTKPDSSLHLMVKDWQLELPKLLISVHGGLQNFEMQP
KLKQVFGKGLIKAAMTTGAWIFTGGVSTGVISHVGDALKDHSSKSRGRVCAIGIAPWG
IVENKEDLVGKDVTRVYQTMNSPLSKLSVLNNSHTHFILADNGTLGKYGAEVKLRRL
EKHISLQKINTRLGQGVPLVGLVVEGGPNVVSIVLEYLQEEPPIPVVICDGSGRASDI
LSFAHKYCEEGGIINESLREQLLVTIQKTFNYNKAQSHQLFAIIMECMKKKELVTVFR
MGSEGQQDIEMAILTALLKGTNV SAPDQLSLALAWN RVDIARSQIFVFGPHWPPLGSL
APPTDSKATEKEKKPPMATTKGGRGKGKGKKKGKVKEEVEEETDPRKIELLNWVNALE
QAMLDALVLD RVD FVKLLIENG VNMQHFLTIPRLEELYNTRLGPPNTLHLLVRDVKKS
NLPPDYHISLIDIGLVLEYLMGGAYRCNYTRKNFRTLYNNLFGPKRPAKLLGMEDD
EPPAKGKKKKKKKKKEEIDIDVDDPAVSRFQYPFHELMVWAVLMKRQKMAVFLWQRGE
ESMAKALVACKLYKAMAHESSES DLVDDISQDLDNNSKDFGQLALELLDQSYKHDEQI
AMKLLTYELKNWSNSTCLKLA VAAKH RDFIAHTCSQMLLTDMWMGR LMRKNPGLKVI
MGILLPPTILFLEFRTYDDFSYQTSKENEDGKEKEEENTDANADAGSRKGDEENEHKK
QRSIPIGTKICEFYNAPIVKFWFYTISYLG YLLL FNYVILVRMDGWPSLQEWIVISYI
VSLALEKIREILMSEPGKLSQKIKVWLQ EYWNITDLVAISTFMIGAILRLQNQPYMGY
GRVIYCVDIIFWYIRVLDIFGVNKYLG PYVMMIGKMMIDMLYFVVIMLVVLM SFGVAR
QAILHPEEKPSWKLARNIFYMPYWMIYGEVFADQIDLYAMEINPPCGENLYDEEGKRL
PPCIPGAWLTPALMACYLLVANILLVNLLIAVFNN TFFE VKSISNQVWK FQRYQLIMT
FHDRPVLPPPMIILSHIYIIIMRLSGRCRKKREGDQEERDRGLKLFLSDEELKRLHEF
EEQC VQEHFREKEDEQQSSDERIRVT SERVENMSMRLEEINERETFMKTSLQTVDLR
LAQLEELSNRMVNALENLAGIDRSDLIQARSRASSECEATYLLRQSSINSADGYSLYR
YHFNGEELLFEDTSLSTSPGTGVRKKTC SFRIKEEKDVKTHLVPECQNSLHLSLGTST
SATPDGSHLAVDDLKNAEESKLGPDIGISKEDDERQTDSKKEETISPSLNKTDVIHGQ
DKSDVQNTQLT VETTNIEGTISYPLEETKITRYFPDETINACKTMKSRSFVYSRGRKL
VGGVNQDVEYSSITDQQLTTEWQCQVQKITRSHSTDIPYIVSEAAVQAEHKEQFADMQ
DEHHVAEAIPIRPSLTITDRNGMENLLSVKPDQTLGFPSLRSKSLHGHPRNVKSIQ
GKLDRSGHASSVSSLVIVSGMTAEKKVKKEKASTETEC (SEQ ID NO:120)

FIGURE 63C

113/115

ATN2 (Na/K transport, NM_000702)

```

1  tctctgtctg ccaggggtctc cgactgtccc agacgggctg gtgtgggctt gggatcctcc
61  tgggtgacctc tcccgttaag gtccctcagc cactctgccc caagatgggc cgtggggctg
121 gccgtgagta ctcacctgcc gccaccacgg cagagaatgg gggcggaag aagaaacaga
181 aggagaagga actggatgag ctgaagaagg aggtggcaat ggatgaccac aagctgtcct
241 tggatgagct gggccgcaaa taccaagtgg acctgtccaa gggcctcacc aaccagcggg
301 ctcaggacgt tctggctcga gatgggcca acgccctcac accacctccc acaaccctg
361 agtgggtcaa gttctgccgt cagcttttcg gggggttctc catcctgctg tggattgggg
421 ctatcctctg ctctctggcc tacggcatcc aggtgccat ggaggatgaa ccatccaacg
481 acaatctata tctgggtgtg gtgctggcag ctgtggtcac tgtcactggc tgcttctcct
541 actaccagga ggccaagagc tccaagatca tggattcctt caagaacatg gtacctcagc
601 aagcccttgt gatccgggag ggagagaaga tgcagatcaa cgcagaggaa gtggtggtgg
661 gagacctggt ggaggtgaag ggtggagacc gcgtccctgc tgacctccgg atcatctctt
721 ctcatggctg taaggtggat aactcatcct taacaggaga gtcggagccc cagaccgct
781 ccccgagtt caccatgag aacccctgg agaccgcaa tatctgtttc ttctccacca
841 actgtgttga aggcactgcc aggggcattg tgattgccac aggagaccgg acggtgatgg
901 gccgcatagc tactctgcc tcaggcctgg aggttgggcg gacaccata gcaatggaga
961 ttgaacactt catccagctg atcacagggg tcgctgtatt cctgggggtc tccttcttcg
1021 tgctctccct catcctgggc tacagctggc tggaggcagt catcttctc atcggcatca
1081 tagtggccaa cgtgcctgag gggcttctgg ccactgtcac tgtgtgctg accctgacag
1141 ccaagcgcac ggcacggaag aactgcctgg tgaagaacct ggaggcggtg gagacgctgg
1201 gctccacgtc caccatctgc tcggacaaga cgggcaccct caccagaac cgcagaccg
1261 tcgcccacat gtggttcgac aaccaaattc atgaggctga caccaccgaa gatcagctctg
1321 gggccacttt tgacaaacga tcccctacgt ggacggccct gtctcgaatt gctggtctct
1381 gcaaccgcgc cgtcttcaag gcaggacagg agaactctc cgtgtctaag cgggacacag
1441 ctggtgatgc ctctgagta gctctgtca agtgattga gctctcctgt ggcctagtga
1501 ggaaaatgag agacagaaac cccaagtggt cagagattcc ttcaactct accaacaagt
1561 accagctgtc tatccacgag cgagaagaca gccccagag ccacgtgctg gtgatgaagg
1621 gggccccaga ggcgattctg gaccggtgct ccaccatcct ggtgcagggc aaggagatcc
1681 cgctcgacaa ggagatgcaa gatgcctttc aaaatgccta catggagctg gggggacttg
1741 gggagcgtgt gctgggattc tgtcaactga atctgccatc tggaaagtgt cctcggggct
1801 tcaaattcga cacggatgag ctgaactttc ccacggagaa gctttgcttt gtggggctca
1861 tgtctatgat tgacctccc cgggctgctg tgccagatgc tgtgggcaag tgccgaagcg
1921 caggcatcaa ggtgatcatg gtaaccgggg atcaccctat cacagccaag gccatttgca
1981 aaggcgtggg catcatatca gagggtaacg agacttgga ggacattgca gcccggtca
2041 acattcccat gagtcaagtc aaccccagag aagccaaggc atgctggtg atgctgctctg
2101 acctgaagga catgacatcg gagcagctcg atgagatcct caagaaccac acagagatcg
2161 tctttgctcg aacgtctccc cagcagaagc tcatcattgt ggagggatgt cagaggcagg
2221 gagccattgt ggccgtgacg ggtgacgggg tgaacgactc ccctgcattg aagaaggctg
2281 acattggcat tgccatgggc atctctggct ctgacgtctc taagcaggca gccgacatga
2341 tcctgctgga tgacaacttt gcctccatcg tcacgggggt ggaggagggc cgcctgatct
2401 ttgacaactt gaagaaatcc atcgccatca ccctgaccag caacatcccc gagatcacc
2461 ccttctgct gttcatcatt gccaacatcc ccctacctct gggcactgtg accatccttt
2521 gcattgacct gggcacagat atggtccctg ccatctcctt ggcctatgag gcagctgaga
2581 gtgatatcat gaagcggcag ccacgaaact ccagacgga caagctggtg aatgagaggc
2641 tcatcagcat ggcctacgga cagatcggga tgatccaggc actgggtggc ttcttcaact
2701 actttgtgat cctggcagag aacggtttcc tgccatcacg gctactggga atccgcctcg
2761 actgggatga ccggaccatg aatgatctgg aggacagcta tggacaggag tggacctatg
2821 agcagcggaa ggtggtggag ttcacgtgcc acacggcatt ctttgccagc atcgtggtgg
2881 tgagtgggc tgacctcatc atctgcaaga cccgccgcaa ctcagtcttc cagcagggca
2941 tgaagaacaa gatcctgatt tttgggctcc tggaggagac ggcgttggct gcctttctct
3001 ctactgccc aggcattgggt gtagccctcc gcatgtacc gctcaaagtc acctggtggt
3061 tctgcgcctt cccctacagc ctctcatct tcatctatga tgaggtccga aagctcatcc
3121 tgcggcgcta tcctggtggc tgggtggaga aggagacata ctactgacc cattggaaga
3181 agaaccaggc atggaaagat ggggagctct ggaggtgttg tggggatggt gatggagagg
3241 gatggaaata acgggtggca ttgggtggca acatttgggg agagataatg aggcaactca

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FIGURE 64A

114/115

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3301 gcaggctaag ttgcgggggta tataaattgg ggtgatgacc ccatagacct aactgtgaac
3361 aatcagatta gacactatgt gttagagtcc ccccgaccag atccttttcc atccccctcc
3421 actatgttgt ctattttttc tgaggaatta agggttaccc caccctgccc actcccatcc
3481 cttcaacccc acttccact gtaatagatc agcatccaaa agcaggaacc catctaaacc
3541 agaaggaagc cctctcagat caccocagcc tcactccatt tcccacttcc acccccgtta
3601 gcttcctgca ggactctatc cctggcttcc ccttcagacc ttgcaatcac aaaaggttct
3661 tctggtgagt gcaagagcct gagactggaa aaggtggact tgtctcccag tgcaggctgg
3721 taagggacct tcaggagagag ctgggcagac aggtgggaga tggaggtagg gctggctgga
3781 ggaaggaaac aacaaaggaa gtgaggtagt gccaatgaca ggacatttga catgagtctc
3841 cagatagatg tcgtggactc cagctctacg tcccacattt tagaataccc caccagcaga
3901 acaaaactcag atctcatcag ggtagcagca gaggcaggac cagaaggcaa tcaagagctt
3961 ccagaaatgc cacacttggtg tgccacagag ttccccgctg acccttgggt aggggtcctc
4021 ttagtccaca aggtccggat gtcactcatg tacttaataa cacttcacct tctgtaatac
4081 taagtcctca gagctccatg ctgttctgaa agggatggcc acaagttctt tcccagcctc
4141 ttccattccc tttcttttca tgcccattcc gatgaacctg catcattccc cgacactgcc
4201 aagccaaccc tggaaaagga gttcgctggc cattggctag aatcagggtg gagaagtccc
4261 ctgaaccttc ctgtctccca gggacatgta tgcttcagg gacaagctta ggtcatgaac
4321 atggtcagaa cctttggaca agaggaaaaa tactaagaga tttgcttttt ctgggtgcgg
4381 tggctcatgc ctgtaatccc agcacttttg gaggccgagg caggtggatc atgaggtcag
4441 gagttcgagg cgagcctggc caacatggtg aaacctgtc tctactaaaa gtacaaaaaa
4501 ttagccagtc atggtggcac acgcctgtaa tctcagctac tcaggaggct gaggcaggag
4561 aattgcttga acctgtgagg aagaggttgc agtgagctga gatcgtgcca ttacactcca
4621 gcctgggcga aagggtgaga ctccatctca aaaaaaaaaa aatgattttg cttttgacgt
4681 cttaggtggc agggctgttc cctccaggca aatgcccttc aaaccgacga tcattgtgcc
4741 cacttaccct gggctggaga gttggtttca ggttcctaca ggagatagct ttctttccct
4801 tactccctat ctaacacttt tgctctgcag gcagccttgc ccattctcta agcctggctt
4861 agaaggcact gggaatgtcc tgtagagaga gacctagata ggatcatgcaa gtgagaaaga
4921 catctgagga aaatggaaga cctaaggcag acaggaagga agcacaaaag acaagcatcg
4981 ggtcagaccc ataaaccacc tcccaaaggc tgtcatttca ttgcaactgga attttgcttt
5041 atcagaagca aggaagtaag ggagtcattg ccttgggcct ggggaatctaa gtgggagaca
5101 atattaatth ggatccgatt aattggagat tactaactgt ggacaaaagt ttatctttgc
5161 acaatcaata aaaatggcat ttttttagta aattaagagc ataaacaata ttgctagagg
5221 tggcatgttt agtctaccaa aaacaatact tttcaggcac tttagaaata tccttttaga
5281 agcagcgagt gcatgggcta attatcatca atctttatgt atttgttaaa gaaacatcta
5341 caggatcttt attggtgacc ttttgtaaga cattagtttg aggtactacc tatctacttg
5401 aaaataataa agtggcattt ctttatgaaa aaaaaagaaa tctcttccat aattcagatt
5461 tctacacttt atacttgctt ccctcctaaa tcgtgatatt gaaatatggt g (SEQ ID

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NO:121)

FIGURE 64B

115/115

ATN2 (Na/K transport, NM_000702)

MGRGAGREYSPAATTAENGGGKKKQKEKELDELKKEVAMDDHKL
SLDELGRKYQVDLSKGLTNQRAQDVLARDGPNALTPPPTTPEWVKFCRQLFGGFSILL
WIGAILCFLAYGIIQAAMEDEPSNDNLYLGVVLAADVIVTGCFSYYQEAKSSKIMDSFK
NMVPQQALVIREGEKMQINAEVVVVDLVEVKGGDRVPADLRISSHGCKVDNSSLTG
ESEPQTRSPEFTHENPLETRNICFFSTNCVEGTARGIVIATGDRTVMGRIATLASGLE
VGRTPIAMIEIHFIIQLITGVAVFLGVSTFFVLSLILGYSWLEAVIFLIGIIVANVPEGL
LATVTVCLTLTAKRMARKNCLVKNLEAVETLGSTSTICSDKTGTLTQNRMTVAHMMWFD
NQIHEADTTEDQSGATFDKRSPTWTALSRIAGLCNRAVFKAGQENISVSKRD TAGDAS
ESALLKCIELSCGSVRKMRDRNPKVAEIPFNSTNKYQLSIHEREDSPQSHVLVMKGAP
ERILDR CSTILVQGKEIPLDKEMQDAFQONAYMELGGLGERVLGFCQLNLPSGKFPRGF
KFDTDELNFPTEKLCFVGLMSMIDPPRAAVPDAVGKCRSAGIKVIMVTGDHPITAKAI
AKGVGIISEGNETVEDIAARLNIPMSQVNPREAKACVVHGSDLKDMTSEQLDEILKNH
TEIVFARTSPQQKLIIVEGCQRQGAIVAVTGDGVNDSPALKKADIGIAMGISGSDVSK
QAADMILLDDNFASIVTGVEEGRLIFDNLKKSIAYT LTSNIPEITPFLLFIIANIPLP
LGTVTILCIDLGTDMPAISLAYEAAESDIMKRQPRNSQTDKLVNERLISMAYGQIGM
IQALGGFFTYFVILAENGFLPSRLLGIRLDWDDRTMNDLEDSYGQEWTYEQRKVVEFT
CHTAFFASIVVQWADLIICKTRRNSVFQQGMKNKILIFGLLEETALAAFLSYCPGMG
VALRMYPLKVTWWFCAFPYSLLIFIYDEVKRLILRRYPGGWVEKETYY (SEQ ID NO:122)

FIGURE 64C